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ABSTRACT

This handbook was compiled for the 44th Linguistic Society of America Meeting in San Francisco, December 29-31, 1969. It consists of the official program for the meeting, abstracts of the 78 papers presented there, and advertisements. The abstracts are arranged in alphabetical order by author, and in some cases are accompanied by handouts. (DO)

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Linguistic Society of America

FORTY-FOURTH ANNUAL MEETING

DECEMBER 29-31, 1969

SAN FRANCISCO, CALIFORNIA

AL 002 236

Meeting Handbook

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Meeting Handbook

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INTRODUCTORY NOTE

This Handbook has been prepared to serve as a guide to those attending the Forty-Fourth Annual Meeting of the Linguistic Society of America. It is also intended as a permanent record of the papers presented at the meeting.

The Handbook consists of the official program of the meeting and the abstracts, as submitted, of the papers scheduled for delivery. Some of the abstracts are accompanied by handouts.

The abstracts are arranged in the order of the program, with the number assigned in the program appearing before the author's name. An alphabetical index of authors appears on page 129.

The idea for the LSA Meeting Handbook was suggested by the Center for Applied Linguistics in 1964, and the first Handbook was prepared for the winter 1965 LSA Meeting in Chicago. The Center subsequently prepared and published the Handbooks for the 1966, 1967 and 1968 meetings. The Handbook has now become an official publication of the Linguistic Society of America, although the Center still assists in its preparation.

Allene Guss Grognet, editor
Washington, D. C.

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Linguistic Society of America

PROGRAM OF THE FORTY-FOURTH ANNUAL MEETING

FAIRMONT HOTEL • ATOP NOB HILL • SAN FRANCISCO 94106

Committee on Arrangements: David Reed, *Chairman,* Wallace Chafe, *Vice-Chairman,* Kenneth Croft, Charles A. Ferguson, Edith C. Johnson, David L. Olmsted, Jesse O. Sawyer, William S-Y. Wang.

Program Committee: John R. Ross, *Chairman,* W. P. Lehmann, Robert E. Longacre, Bernard J. Spolsky, Theodore W. Walters.

Meeting of the Executive Committee on Sunday, December 28, at 2:00 p.m., Garden Room, Main Lobby.

The Registration Desk will be open between 7:00 p.m. and 8:00 p.m., December 28, in the Grand Ballroom Lobby.

Morning sessions are divided into three sections which run simultaneously: *Section One* will meet in the Gold Room; *Section Two* in the Venetian Room; and *Section Three* in the Crystal Room.

Afternoon and evening sessions will meet in the Grand Ballroom, December 29 and 30, and in the Gold Room, December 31.

Monday, December 29

8:00 A.M. Registration

9:00 A.M. FIRST SESSION, READING OF PAPERS

Section One: Syntax

1. Robin Lakoff, University of Michigan: Tense and Its Relation to Speaker and Hearer. (20 minutes)
2. Peter A. Reich, University of Toronto: Order in Deep Structure. (20 minutes)
3. Gerald A. Sanders and James H-Y. Tai, University of Texas at Austin: Immediate Dominance and Identity Deletion in Mandarin Chinese. (20 minutes)
4. Mario Saltarelli, Cornell University: Focus on Focus: Propositional Generative Grammar. (20 minutes)
5. William H. Jacobsen, Jr., University of Nevada: The Analog of the Passive Transformation in Ergative-Type Languages. (20 minutes)
6. C. L. Baker, University of Texas at Austin: Concealed Questions: Their Generation and Interpretation. (20 minutes)
7. David M. Perlmutter, Brandeis University: On the Separability of Syntax and Semantics. (20 minutes)

Section Two: Sociolinguistics

8. Susan H. Houston, Northwestern University: Child Black English: The School Register. (20 minutes)
9. Clyde E. Williams, Southwest Regional Laboratory for Educational Research and Development: On the Contribution of the Linguist to Institutionalized Racism. (20 minutes)
10. Kostas Kazazis, University of Chicago: The Relative Importance of Parents and Peers in First-Language Acquisition. (20 minutes)
11. David DeCamp, University of Texas at Austin: Implicational Analysis, Frequency Analysis, and Linguistic Theory. (15 minutes)
12. Francis T. Gignac, Fordham University: Semitic Interference in Koine Greek. (20 minutes)
13. Glenn G. Gilbert, University of Texas at Austin: The Linguistic Geography of European Colonial and Immigrant Languages in the United States. (15 minutes)

14. Howard Berman, University of Chicago: Language Contact in Ancient Italy. (20 minutes)

Section Three: Diachronic Linguistics

15. Warren Cowgill, Yale University: On Resonant Clusters in Ancient Greek. (20 minutes)
16. Henry M. Hoenigswald, University of Pennsylvania: Typology, Reconstruction and the IE Semivowels. (20 minutes)
17. Thomas W. Juntune, Michigan State University: On Germanic *i and *e. (20 minutes)
18. Charles E. Cairnes, University of Texas at Austin: Trubetzkoy's Analysis of Attic Greek: Some Fundamental Problems for Markedness Theory. (20 minutes)
19. George S. Lane, University of North Carolina: The Problem of 'Obvious' Etymologies. (15 minutes)
20. Ronald W. Langacker, University of California, San Diego: The Vowels of Proto Uto-Aztecan. (15 minutes)
21. Dale I. Purtle, American University: Some Speculations on the Genetic Relationship of Southeast Asian Languages to Sino-Tibetan. (20 minutes)

2:00 P.M. SECOND SESSION, READING OF PAPERS

22. Charles-James N. Bailey, University of Hawaii: A New Intonational Feature and Theory to Account for Pan-English and All Idiom-Particular Patterns. (20 minutes)
23. Robert E. Longacre, Summer Institute of Linguistics: Sentence Structure as a Statement Calculus. (20 minutes)
24. Paul M. Postal, I.B.M. Research: Plurality and Coordination. (20 minutes)
25. William Labov and Benji Wald, Columbia University: Some General Principles of Vowel Shifting. (20 minutes)
26. George Lakoff, University of Michigan: Global Rules. (20 minutes)

7:00 P.M. Cocktails, Pavilion Room (Paying Bar)

8:00 P.M. ANNUAL INFORMAL BANQUET FOR MEMBERS AND THEIR GUESTS, *Grand Ballroom.*

After the Banquet, the Presidential Address will be given by Archibald A. Hill, University of Texas at Austin: Laymen, Lexicographers, and Linguists.

Tuesday, December 30

9:00 A.M. THIRD SESSION, READING OF PAPERS

Section One: Syntax

27. Lauri Karttunen, University of Texas at Austin: A-Verbs and B-Verbs. (20 minutes)
28. Gregory Lee, Ohio State University: The Deep Structure of Indirect Speech. (20 minutes)
29. Mary Gallagher, Queens College: Accounting for Indirect Discourse. (20 minutes)
30. Adrian Akmajian, Massachusetts Institute of Technology and Language Research Foundation: Some Generalizations Concerning the Interpretation of Anaphoric *It.* (20 minutes)
31. Jacob Mey, University of Texas at Austin: Is Reflexivization Always a Cyclic Rule? (20 minutes)
32. Thomas H. Peterson, University of California, Santa Barbara: Imperatives and Purpose and Reason Adverbials as Complements of Abstract Verbs in Mooré. (20 minutes)
33. Shou-hsin Teng, University of California, Berkeley: Comitative versus Phrasal Conjunction. (20 minutes)

Section Two: Diachronic Linguistics

34. Larry M. Hyman, University of California, Los Angeles: The Role of Borrowing in the Justification of Phonological Grammars. (20 minutes)

35. Matthew Chen and Hsin-I Hsieh, University of California, Berkeley: The Time Variable in Phonological Change. (20 minutes)
36. Alexander Hull, Duke University: On the Origins of the Modern French Verb System. (20 minutes)
37. Paul M. Lloyd, University of Pennsylvania: On the Notion of 'Cause' in Phonetic Change. (15 minutes)
38. Paul L. Kirk, San Fernando Valley State College: The Development of Jalapa Mazatec Voiced Aspirates. (15 minutes)
39. Sarah Grey Thomason, Yale University: On the Nature of Analogical Change. (20 minutes)
40. Jonathan L. Butler, University of California, Davis: A Distinctive Feature Approach to Diachronic Romance Consonantism. (20 minutes)

Section Three: Varia

41. Yuen Ren Chao, University of California, Berkeley: Is Scientific Language Language? (18 minutes)
42. Harry A. Whitaker, University of Rochester: Unsolicited Nominalizations by Aphasics: The Plausibility of the Lexicalist Model. (20 minutes)
43. Ronald E. Buckalew, Pennsylvania State University: Aspects of *Get*. (20 minutes)
44. Sanda Golopenţia-Eretescu, Rumanian Academy of Sciences: Semantic Formalism. (20 minutes)
45. Barend A. van Nooten, University of California, Berkeley: The Nuclear-Peripheral Principle of Rule Ordering in Indian Grammar. (15 minutes)
46. Regna Darnell, University of Alberta: The Revision of the Powell Classification: A Chapter in the History of American Indian Linguistics. (20 minutes)
47. Larry H. Reeker, Ohio State University: The Generalization of Syntactic Specification. (15 minutes)

2:00 P.M. FOURTH SESSION, READING OF PAPERS: *Phonological Theory*

48. David L. Stampe, Ohio State University: The Genesis of Phonology. (45 minutes)
49. Charles W. Kisseberth, University of Illinois: On the Role of Derivational Constraints in Phonology. (45 minutes)
50. Paul Kiparsky, Massachusetts Institute of Technology: Where Do Conspiracies Come From? (45 minutes)

8:00 P.M. FIFTH SESSION, BUSINESS MEETING

A. Minutes of the last meeting.
B. Report of the Secretary.
C. Report of the Treasurer.
D. Revision of the Constitution.
E. Report of the Executive Committee.
F. Report of the Committee on Publications.
G. Reports of the Standing Committees, Appointed Committees, and Delegates.
H. Report of the Nominating Committee.
I. Appointment of the Committee on Resolutions.
J. Other business, proposed by any member of the Society.

Wednesday, December 31

9:00 A.M. SIXTH SESSION, READING OF PAPERS

Section One: Phonology

51. Alan Bell, Stanford University: On Syllabic Consonants. (20 minutes)
52. Chin-Wu Kim, University of Illinois: Language-Specific Metarules in Phonology. (20 minutes)
53. Henry Lee Smith, Jr., State University of New York, Buffalo: The Morphophonic Status of /h/ and /+/ in English. (20 minutes)
54. Burckhard Mohr, University of California, Berkeley: Intrinsic Variations of Acoustical Parameters of Speech Sounds. (15 minutes)

55. James A. Foley, Simon Fraser University: Phonological Distinctive Features. (20 minutes)
56. Oliver M. Willard, University of Oregon: Features: Unary or Binary. (20 minutes)
57. Claire Assilin, University of Connecticut: Grafting. (20 minutes)
58. John Robert Ross, Massachusetts Institute of Technology: A Stress Conspiracy in English. (20 minutes)

Section Two: Psycholinguistics and Semantics

59. D. L. Olmsted, University of California, Davis: The Effect of Position in the Utterance on Acquisition of Phones by Children. (20 minutes)
60. Thelma E. Weeks, Stanford University: Speech Registers in Young Children. (15 minutes)
61. Edward C. T. Walker, Massachusetts Institute of Technology: Grammatical Relations and Sentence Memory. (15 minutes)
62. Samuel Fillenbaum and Amnon Rapoport, University of North Carolina: An Experimental Study of Semantic Structure: English Kin Terms. (20 minutes)
63. Ranko Bugarski, University of Belgrade: On Symmetry in Prepositional Systems. (20 minutes)
64. Laurence R. Horn, University of Michigan: Presupposition and the English Quantifier System. (20 minutes)
65. Steven B. Smith, University of California, Riverside: Relations of Inclusion. (20 minutes)

Section Three: Language Studies

66. Jean Casagrande, University of Florida: Agreement in French. (20 minutes)
67. Marlys McClaran, University of California, Los Angeles: The Verbal Categories in Yucatec Maya. (20 minutes)
68. Alan M. Stevens, Queens College: Case Grammar in Philippine Languages. (20 minutes)
69. Zdeněk F. Oliverius, Monash University: Componential Analysis of Russian Morphemes. (10 minutes)
70. Charles N. Li, University of California, Berkeley: The Semantics of Passive (BEI) and Executive (BA) Constructions in Mandarin Chinese. (20 minutes)
71. William E. Welmers, University of California, Los Angeles: The Derivation of Igbo Verb Bases. (15 minutes)
72. Eric Hamp, University of Chicago: A Borrowed Morphophonemic Particularity. (15 minutes)
73. Anthony J. Naro, University of Chicago: Directionality and Assimilation in Portuguese. (10 minutes)

2:00 P.M. SEVENTH SESSION, READING OF PAPERS

74. Sydney M. Lamb, Yale University: The Stratificational Treatment of *Have. .-en* and Other Discontinuous Morphemic Realizations. (20 minutes)
75. Paul L. Garvin, State University of New York, Buffalo: Moderation in Linguistic Theory. (15 minutes)
76. Stanley Peters, University of Texas at Austin: Why There Are Many 'Universal' Bases. (20 minutes)
77. Joseph H. Greenberg, Stanford University: The Theoretical Significance of the Relation of Frequency to Semantic Features in a Case Language (Russian). (20 minutes)
78. Arthur J. Compton, University of Iowa: Developmental Phonology. (20 minutes)

1. Robin Lakoff, University of Michigan

TENSE AND ITS RELATION TO SPEAKER AND HEARER

Tense has traditionally been treated as involving only one factor: the time at which the act described occurred or is expected to occur relative to the time of utterance. But examples can be given that show that, in some cases at least, other factors must be taken into consideration in order to explain the tense of a verb. (In these examples, the underlined verb is the relevant one.)

(1) The animal you saw was a chipmunk: he's running up a tree now.
(2) The animal you saw is a chipmunk: here's a picture in this guidebook.
(3) The animal you described to me will no doubt be a chipmunk.

These uses of present, past, and future tenses should be contrasted with their usual function of establishing the actual time of the occurrence of the event, as in the following:

(4) The animal we ran over was a chipmunk, but he's dead.
(5) The animal the sorcerer got hold of was a chipmunk, but now he's a badger.
(6) The thing in that chrysalis will be a butterfly soon.

The tenses in (4) - (6) may sometimes be replaced by periphrastic equivalents. This is never true of those in (1) - (3):

(7) The animal we ran over used to be a chipmunk, but now it's dead.
(8) *The animal you saw used to be a chipmunk: now he's running up a tree.
(9) The thing in that chrysalis is going to be a butterfly soon.
(10)*The animal that you described to me is no doubt going to be a chipmunk.

This paper will present arguments of this type for looking at tenses as being more complex than as traditionally described, and will present a means of analyzing the different tense uses, some of which are illustrated above, within the framework of generative semantics. Additional examples will be discussed in other languages; for example, epistolary tenses in Latin and gnomic aorists in Greek, which will be shown to be related to the tense uses in examples (1) - (3) above.

2. Peter A. Reich, University of Toronto

ORDER IN DEEP STRUCTURE

Various hypotheses have been proposed about the order of elements in the deep structure of English, including unordered (Staal), subject-verb-object (Chomsky), verb-subject-object (McCawley), and verb-objective-agentive (Fillmore).

A process/participant analysis of deep structure is presented and compared to similar analyses by Fillmore and Halliday. Evidence from English is given supporting a deep structure order consisting of process-affected-agent-beneficiary-causer. This underlying order, combined with the perturbating effects of three extra-clause factors -- focus, theme, and information -- most simply accounts for many of the different possible surface structures.

In this framework the hypothesized deep structure element passive is superfluous. It is simpler to consider passive strictly as a surface construction which occurs if and only if in deep structure the focus is on the affected and the causer is present. In other words passive is a special case of much more general discourse constructions.

3. Gerald A. Sanders and James H-Y. Tai, University of Texas at Austin

IMMEDIATE DOMINANCE AND IDENTITY DELETION IN MANDARIN CHINESE

In this paper, we will propose the notion of "immediate dominance" as a general condition on identity deletion in Mandarin Chinese and languages of the same type. This condition explains a number of interesting differences between languages like English and languages like Mandarin in constructions involving identity deletion.

The "immediate dominance" condition says that identical constituents can be deleted only if they are either immediately dominated by conjuncts of a coordination or by a subordinate clause.

This condition will be shown to explain many of the differences in the hierarchical restrictions on coordination reduction in different languages. For example, the fact that Mandarin doesn't have gapping or deletion of identical objects, but English does. This condition also provides a unitary explanation of the hitherto unexplained pattern of pronominalization in relative clauses in Mandarin, an explanation which is quite possibly also applicable to other languages of the same type.

Some more general questions will also be raised concerning the possibility of applying this condition to other grammatical processes such as Comparative Deletion and Equi-NP Deletion.

4. Mario Saltarelli, Cornell University

FOCUS ON FOCUS: PROPOSITIONAL GENERATIVE GRAMMAR

An analysis of utterances is proposed in which sets like (1) (a) *J. cut the cake with the knife*, (b) *J. used the knife to cut the cake* are characterized by identical 'propositions' (a transitive and an instrumental) and different 'focus' (on the transitive proposition in (a), on the instrumental in (b)). Likewise are defined sets like (2) (a) *J. built the house on the hill in three months*, (b) *it took J. three months to build the house on the hill*, (c) *it was on the hill that J. built the house in three months*.

Such a view is highly motivated on empirical grounds. Semantically it offers a straight definition for a yet uncharacterized range of sentential relations (consider Lakoff/Bresnan controversy on instrumentals) as in (1) and (2) and all other complements like (3) (a) *malaria caused people to die*, (b) *people died because of malaria*. Syntactically it defines the phenomenon of 'subordination' (main/dependent clause) as a surface reflection of the deeper concept of focus, eliminating therefore verb complement embedding as in (1) (b) from the underlying representation. Further surface results of the choice of focus are the relative surface order of propositions, verb/preposition alternation (*use*/*with*, *cause*/*because of*, etc.), contrastive stress, and other phenomena.

A grammar of propositions involves (I) a system of compositions: (i) $\Sigma : (P)^n$ accounting for 'juxtaposition' (with conjunction as a subtype), (ii) $P : (V/N)_1^3$ defining noun-less (*it's raining*), one-noun (*J. runs*) and two-noun (*J. eats potatoes*) propositions. It includes also (II) general processes like 'focalization', 'lexicalization', 'reduction', 'structuralization'.

Such a system of generative grammar abandons the 'centrality' of the syntactic component by recognizing a narrower unit -- the 'proposition' -- as a more suitable basis for the underlying representation of utterances; the 'sentence' (defined in terms of branching and relative order) being a definable surface reflection of a complex Σ of propositions.

5. William H. Jacobsen, Jr., University of Nevada

THE ANALOG OF THE PASSIVE TRANSFORMATION IN ERGATIVE-TYPE LANGUAGES

In ergative-type languages, a distinctive case, the ergative, is used for the agent of transitive verbs, while another case, commonly called the nominative, is used for the subject of intransitive verbs as well as for the patient or goal of transitive verbs. Considerable discussion has taken place as to whether the transitive verbs in such languages are inherently passive. Linguists who have resisted this idea, feeling that a passive should be recognized only when it is a transform of an underlying active, have agreed that such languages have no passive transformations. The idea that such languages represent a more primitive type than the accusative-type languages has also been advanced more or less strongly, either because they lack an active voice or because they lack a passive transformation.

There has also been considerable disagreement as to the definition of the subject in such languages. I accept the view most recently propounded by Gołab (General Linguistics 9.1-12 [1969]) that the subject in both kinds of sentences is the nominative case form (called by him absolutive).

Many ergative-type languages may have a transformation analogous to the passive, if looked at in a sufficiently abstract way. A passive transformation in an accusative-type language may be symbolized as follows (with no implication as to word order):

$$N_1 \quad V \quad N_2\,(\text{acc.}) \quad \Rightarrow \quad N_2 \quad V_p \quad (N_1).$$

The originally marked, accusative form, expressing the patient, is converted into the subject; the verb phrase is marked for passive; while the original subject might be dropped, or converted into another case form such as the instrumental, or even retained in the nominative. The analogous transformation, then, may be symbolized as follows:

$$N_1 \quad V \quad N_2\,(\text{erg.}) \quad \Rightarrow \quad N_2 \quad V_a \quad (N_1).$$

Such a transformation would put the emphasis, not on the patient, but on the agent, by making it the subject, and might therefore be called an agentive transformation. Examples from several languages are discussed.

6. C. L. Baker, University of Texas at Austin

CONCEALED QUESTIONS: THEIR GENERATION AND INTERPRETATION

Students of English grammar have frequently noted that, in addition to sentences containing explicit subordinate questions with verbs such as _know_, _remember_, and _find out_, there are synonymous sentences containing non-sentential objects, which we may refer to as "concealed questions":

1a) I don't know _which one you mean_.

b) I don't know _the one you mean_.

2a) Tell me _which house you wish to buy_.

b) Tell me _the house you wish to buy_.

If we assume that an adequate semantic characterization of such pairs of sentences must reflect the fact that they are paraphrases, we must then ask whether a more adequate treatment results from an analysis in which the two constructions are derived from an identical base representing their shared semantic reading, or from an analysis in which the two constructions are generated by different base rules, their synonymy being accounted for by interpretive semantic rules. Evidence is presented for the correctness of the second alternative; this evidence rests on pronounced syntactic differences between the two constructions. An informal rule of semantic interpretation is proposed for concealed questions, and a number of consequences for the theory of grammar and the analysis of relative clauses are examined briefly.

7. David M. Perlmutter, Brandeis University

ON THE SEPARABILITY OF SYNTAX AND SEMANTICS

This paper is addressed to the question — left open by Chomsky in Aspects — of whether semantic considerations play any role in the syntactic behavior of lexical items. We answer this question affirmatively on the basis of the facts of adjectival and participial agreement in Polish.

First we establish that the agreement of adjectives with the subject is a syntactic transformation. Then we proceed to show that this transformation is sensitive to semantic information. Polish nouns have syntactic gender, which is in most cases not predictable from the meaning of the noun. In the singular, adjectives agree with the subject in syntactic gender. In the plural, however, adjectives agree with the subject not in syntactic gender, but rather with respect to the markers or features 'Male' and 'Human' in its semantic representation. Since any property of a lexical item which plays a role in the syntax is by definition a syntactic property, we conclude that semantic considerations do play a role in the syntactic behavior of lexical items. We also note that in Polish the 'masculine person' category in question plays a role not only in the syntax, but also in the morphology, where it determines the plural desinence of nouns. Finally, we note that Polish is not the only language in which an agreement transformation is sensitive to semantic information of this kind.

8. Susan H. Houston, Northwestern University

CHILD BLACK ENGLISH: THE SCHOOL REGISTER

Most extant studies of nonstandard child language have remarked on the linguistic deprivation and nonfluency characteristic of these forms of language, and have attempted through linguistic and pedagogical means to suggest a cause and a cure for this condition. In the paper which I presented to the LSA last year, I showed that many or most of such observations can be traced to the existence of register in nonstandard genera of English, specifically in Uneducated Child Black English. In particular, observers who fail to elicit the fluent and natural Nonschool register but concentrate instead on the School register are witnessing a sampling of the children's performance which is nonrepresentative of their total competence.

In my previous paper, I set forth a beginning analysis of the Nonschool register of Child Black Englisn in Northern Florida (CBE/Fla). The present paper, a continuation of that research based upon new data, is an analysis of several styles found within the School register of CBE/Fla. The paper discusses phonological and syntactic aspects of these styles, which I term the School Speaking style and the Reading style; it examines which characteristics of these styles lead to conclusions of linguistic deprivation and what are the chances for success of linguistic remediation programs based upon work with the School register. In addition, the status of the linguistic descriptions presented here and in the previous paper in regard to models of performance and of competence will be considered.

9. Clyde E. Williams, Southwest Regional Laboratory for Educational Research and Development

ON THE CONTRIBUTION OF THE LINGUIST TO INSTITUTIONALIZED RACISM

This paper is an attempt to call to the attention of linguists certain ill-founded assumptions made by various psychologists and educators regarding the language of lower class black and Mexican-American children. Such claims are usually put forward to explain the failure of these children in school. For example, Arthur Jensen ("Social Class and Verbal Learning." In M. Deutsch, _et al_, (Eds.), _Social Class, Race, and Psychological Development_. New York: Holt, Rinehart and Winston, 1968), states that because there is _reportedly_ less "verbal play," less "verbal interaction," and less "reinforcing behavior" on the part of older members of the household, the acquisition of language is more likely to be delayed for the lower class child.

Jensen argues further for the uneducability of the lower class child by assuming that language and thought are functionally and developmentally completely interdependent. Thus, if the child is developmentally retarded in his linguistic ability, his cognitive processes will likewise be adversely affected. On the basis of one study, it was hypothesized that lower class Mexican-American children come from a "particularly nonverbal background." Jensen feels that the school problems these children face stem from the fact that they are developmentally retarded in a particular type of "verbal mediation." Jensen considers the acquisition of this type of learning to be the first stage that clearly sets the child apart from the lower animals psychologically, stating that "Until this stage of development is reached, the child shows little superiority to the chimpanzee of comparable age."

Finally, the paper considers the contributions which the linguist may make in dealing with this particular form of institutionalized racism.

10. Kostas Kazazis, University of Chicago

THE RELATIVE IMPORTANCE OF PARENTS AND PEERS IN FIRST-LANGUAGE LEARNING

One of the criticisms that Weinreich, Labov, and Herzog (1968) level at Halle's model of language acquisition and linguistic change (1962) is that it attributes too important a role to the parents. They suggest instead that the part played by slightly older peers is more crucial. It takes but little effort for anyone living in the United States to see the truth of that objection. This paper will try to show, however, that there may be communities or subcultures within certain communities, where the role of peers is somewhat less important than what Weinreich et al. might want to argue. The specific case to be discussed is that of some Athens-born middle-class teenagers whose parents originate from Istanbul. Istanbul Greek differs from standard Athenian in a few crucial points, the most salient of which is perhaps the use of the accusative as the indirect-object case, where Athens uses the genitive. The fact that such teenagers sometimes successfully resist pressures from peers (including occasional cruel taunting) to change their linguistic habits argues in favor of the view that the relative role of parents versus peers in language acquisition and change varies from one (sub)culture to another. In fact it depends on several extralinguistic factors, one of which is certainly that of intra-family cohesion; there are striking differences between Greece and the United States in this respect. It is by no means claimed here that the model proposed by Weinreich et al. does not (or at worst cannot) provide for such a degree of sophistication, but simply that one should be careful not to exaggerate the role of peers on the basis of observations made in this country.

HANDOUT

The Relative Importance of Parents and Peers in First Language Acquisition

I. "I give you (X)"

(a) Standard Athenian:	sou	dinō
	to-thee (gen.)	I-give
(b) Istanbul Greek:	se	dinō
	to-thee (acc.)	I-give

NB. In Istanbul Greek, Ib is ambiguous. It can also mean "I give you (to X)," where "you" is a direct object. In Athenian, Ib can only have the latter meaning.

II. "give it to me!"

(a) Standard Athenian:	dōse	mou	to
	give!	to-me (gen.)	it
(b) Istanbul Greek:	dōse	me	to
	give!	to-me (acc.)	it

NB. IIa and IIb are not ambiguous, either in Athenian or in Istanbul Greek, since there is also an overt direct object, viz. to.

References

Haugen, Einar. 1967. "On the rules of Norwegian tonality." LANGUAGE 43.185-202. (See esp. pp. 185 and 186.)

Kazazis, Kostas. 1967. "A case of ambiguity in Modern Greek." LANGUAGES AND AREAS: STUDIES PRESENTED TO GEORGE V. BOBRINSKOY ON THE OCCASION OF HIS ACADEMIC RETIREMENT. Chicago: The Division of the Humanities, The University of Chicago, pp. 70-76.

Thumb, Albert. 1912. HANDBOOK OF THE MODERN GREEK VERNACULAR (translation of HANDBUCH DER NEUGRIECHISCHEN VOLKSSPRACHE). Edinburgh: T. and T. Clark. (See esp. pp. 38-40.)

Triantaphyllidēs, Manolēs. 1963. "'Dōse mou tō' -- 'Dōse me to'." HAPANTA (collected works), vol. 2. Salonika: Aristoteleion Panepistēmion Thessalonikēs, Institouton Neoellēnikōn Spoudōn, pp. 200-205.

Tzartzanos, A. A. 1946. NEOELLĒNIKĒ SUNTAXIS (tēs koinēs dēmotikēs), 2nd edition, vol. 1. Athens: Organismos Ekdoseōs Skholikōn Bibliōn. (See esp. pp. 95-96.)

11. David DeCamp, University of Texas

IMPLICATIONAL ANALYSIS, FREQUENCY ANALYSIS, AND LINGUISTIC THEORY

Implicational scale analysis and variable frequency analysis, the two leading approaches to sociolinguistic variation, are frequently applicable to the same linguistic data. They are not mere alternative analytical devices, however, for they present two very different perspectives on a language in society, and they are based on very different conceptions of what a linguistic theory should be and do.

Frequency analysis attempts to produce an empirical description of a corpus. This corpus may be non-finite (e.g. all the speech acts occurring in San Francisco during an indefinite period), but it is still a set of linguistic performances in context that are being described. Because such a corpus normally contains gradient frequencies of covariables (e.g. "*r*-dropping" and socio-economic level), a frequency analysis must include gradient correlations.

Implicational analysis attempts not to describe the set of speech acts which constitute a corpus, but to model the idealized competence of the persons involved in those speech acts. Because sociolinguistic competence, both of individuals and of groups, consists not of meters and variable controls designed to maintain a specified frequency, but rather of a complex set of discrete decisions (to *ain't* or not to *ain't*), an implicational analysis consists of schemata of discrete conditional statements (if A then B). Although frequency statements may be essential to a description of linguistic performance, they are unnecessary in a competence grammar or in a sociolinguistic study based on competence.

12. Francis T. Gignac, Fordham University

SEMITIC INTERFERENCE IN KOINE GREEK

This paper examines the problem of bilingualism in the Greek records of Semitic peoples, including non-literary papyri from the Judean desert, Nabatea, and Egypt, the various Greek translations of the Old Testament, and the writings of the New Testament. It discusses the respective Semitic substrata involved in light of the Qumran discoveries and tries to ascertain the precise influence operative in the various interference phenomena. It discusses from a theoretical point of view the evaluation of evidence for bilingualism in written documents of dead languages and shows how attempts to isolate forms of Semitic interference have been unsuccessful through the lack of a contrastive grammar approach to the languages involved. It points out the fallacy inherent in adducing parallels to supposed Semitic interference phenomena in the Koine cited from documents emanating from an Egyptian milieu, on the evidence of extensive Egyptian interference in the Greek of Egypt as outlined in my 1966 LSA and 1967 Bucharest papers. It concludes by illustrating from literary and non-literary records the main forms which Semitic interference takes in the phonology, morphology, and syntax of Koine Greek.

HANDOUT

Semitic Interference in Koine Greek

1. μεδένα, τε͂ς (for μηδένα, τῆς) P. Colt 15, 16 & 17.
   ἐπερωτεθεὶς ὡμολόγεσα (for ἐπερωτηθεὶς ὡμολόγησα) P. Colt 25, 2.
   προειρημήνος (for προειρημένος) P. Colt 45, 11.

2. ἐγὼ εἰμὶ ἐξέρχομαι Aquila Ex. 8, 25 (29).
   אָנֹכִי יוֹצֵא MT Ex. 8, 25.

3. ἦν γὰρ διδάσκων Mk. 1, 22.
   הוּא הָיָה אוֹמֵר Sayings of the Fathers I, 2.

4. γυνή...ἧς εἶχεν τὸ θυγάτριον αὐτῆς πνεῦμα ἀκάθαρτον Mk. 7, 25.

5. ἀποκριθεὶς εἶπεν Mt. 4, 4. ἀπεκρίθη...καὶ εἶπεν Jn. 3, 3.
   עָנֵה מַלְכָּא וְאָמַר Dan. 2, 5. עֲנָת מַלְכְּתָא וַאֲמֶרֶת Dan. 5, 10.

6. Ἐν κεφαλαίῳ ἔκτισεν θεὸς σὺν τὸν οὐρανὸν καὶ σὺν τὴν γῆν Aquila Gen. 1, 1.
   בְּרֵאשִׁית בָּרָא אֱלֹהִים אֵת הַשָּׁמַיִם וְאֵת הָאָרֶץ MT Gen. 1, 1.

7. ἀπὸ ἐπὶ προσώπου μου Aquila 2 Kg. 23, 27.
   מֵעַל פָּנָי MT 2 Kg. 23, 27.

8. Καὶ ἐγένετο μετὰ τὴν τελευτὴν Μωυσῆ εἶπεν κύριος LXX Jos. 1, 1.
   וַיְהִי אַחֲרֵי מוֹת מֹשֶׁה...וַיֹּאמֶר יְהוָה MT Jos. 1, 1.

9. γενηθήτω τὸ θέλημά σου ὡς ἐν οὐρανῷ καὶ ἐπὶ γῆς Mt. 6, 10.
   יִתְעֲבֵד רְעוּתָךְ כִּבְשְׁמַיָּא וְעַל אַרְעָא Aramaic reconstruction.

13. Glenn G. Gilbert, University of Texas at Austin

THE LINGUISTIC GEOGRAPHY OF EUROPEAN COLONIAL AND IMMIGRANT LANGUAGES IN THE UNITED STATES

The terms "colonial languages" and "immigrant languages" are used in Haugen's sense.

The paper deals with three problems encountered in the areal study of these languages and examines how data presented in tabular or map form can assist in their solution. They are: 1) the mechanisms by which the speakers of various dialects of a single language -- dialects which were often mutually unintelligible in Europe -- make themselves understood in the new situation; 2) the compilation of glossaries recording the lexical "adjustments" brought about by a socio-physical environment ranging from somewhat different to much different from that of Europe; 3) idiolectal vs. communal effects of wholesale bilingualism over large areas.

It is maintained that a process similar to the creolization of a pidgin or contact language takes place in interdialectal situations involving the immigrant generation as opposed to succeeding generations.

The use of theory oriented (rather than data oriented) elicitation procedures and questionnaires for both phonology and syntax is discussed in the light of recent theories of rule reordering and rule additions in areal linguistics (cf. Keyser, Saporta, P. Kiparsky, D. Becker).

The paper concludes with the observation that study of the American immigrant languages should be greatly accelerated since they are faced, in many cases, with imminent extinction.

14. Howard Berman, University of Chicago

LANGUAGE CONTACT IN ANCIENT ITALY

In the first millennium B.C. the Italian peninsula was occupied by people of various linguistic affiliations. The better attested of these languages are Latin, Oscan, Umbrian, Etruscan, and Greek. Despite their diversity of origin, a comparison of these languages reveals common phonological characteristics which have led them to be grouped together as a sprachbund. These include similar consonant systems, preponderance of voiceless obstruents, especially among the fricatives, vowel systems divided into non-parallel sets of short vowels, long vowels, and diphthongs, with diphthongs more frequent in the south than in the north, and demarcative initial stress accent leading to vowel syncope in non-initial syllables and simplification of the resulting consonant clusters. This paper describes some of these shared features and attempts to make explicit some criteria for determining which are the result of genetic relationship and which are the result of language contact.

HANDOUT

Language Contact in Ancient Italy

Ancient Greek

p t k	i u	ī ū	ui
p^h t^h k^h	e o	ẹ̄ ō	ei oi
b d g	a	ę̄ ā	ai
	ę̄i ōi	eu ou	ę̄u ōu
	āi	au	āu

Oscan

p t k	(i) u	ī ū	ei oi
b d g	ẹ o	ẹ̄ (ō)	ai
f s h	ę a	(ę̄) ā	(eu) ou
			au

Latin

p t k	i u	ī ū	(ui)
b d g	e o	ē ō	oe (eu)
f s h	a	ā	ae au

Umbrian

p t k	i u	ī ū
b d g	e o	ẹ̄ ọ̄
f s h	a	ę̄ ǭ
		a

Etruscan

p t k			
f θ x	i u	ei	
	e a	ai	au
s ś h			

15. Warren Cowgill, Yale University

ON RESONANT CLUSTERS IN ANCIENT GREEK

The developments in Greek of clusters of one of the resonants m n l r y w with another resonant or with s have recently been discussed in Language 43.619-35 by Paul Kiparsky. While Kiparksy's article constitutes a notable advance in our understanding of these developments, especially as regards *ws, I find some of the developments he proposes unlikely, and believe that a different set of rules will account for the data more adequately and more simply.

One group of clusters involving *s and *y (and perhaps *ln) results in a long resonant medially in North Aeolic, and a short resonant in other dialects, before which a preceding vowel is lengthened. I propose that here Proto-Greek had long (voiced) resonants, which North Aeolic has preserved, while in the other dialects one mora has shifted to the preceding vowel. Long resonants attested in these dialects arose later than the shift in quantity. Proto-Greek long resonants from clusters of resonant with *s developed by assimilation of *h from *s to the neighboring resonant, as part of the general Greek voicing of noninitial *h. Long resonants from resonant plus *y arose by depalatalization of long palatalized resonants assimilated from the original clusters; this sequence of palatalization followed by depalatalization has to be posited for other consonant plus *y clusters also.

*yy was not subject to transfer of quantity -- the evidence Kiparsky gives for such transfer can be interpreted differently; if palatal consonants in general were exempt from transfer of quantity, the peculiar treatment of *ly may be due to a delay in the depalatalization of the *l′l′ that developed in the first instance from this cluster.

Where resonant plus *y clusters have apparently been metathesized, there is no good reason to depart from the old view that the -i- of ain, oin, air, oir comes from a glide that developed between the vowel and the following palatalized consonant and became phonemic when the consonant was depalatalized. The development of *wy to yy probably went thru a stage *ẃẃ; the evidence for a stage yw is not reliable.

HANDOUT

On Resonant Clusters in Ancient Greek

I Kiparsky's rules, Language 43.619-35, in order:

B. s yields h next to sonorant; e.g. ws > wh, sy > hy, ms > mh, VsV > VhV
y yields h under similar conditions, but not if the following sonorant is a glide (w,y), a nasal (m,n), or a liquid (r,l); and not if the preceding sonorant is a glide; and not if the vowel before the preceding sonorant is a or o. E.g. VyV > VhV, iny > inh, ery > erh; but yy, yw, ym, yn, yr, yl, wy, any, ory remain.

C. liquid, nasal, or w + h or y metathesizes; e.g. ry > yr, rh > hr, wh > hw, wy > yw

D. h before liquid, nasal, or w assimilates to preceding vowel in most dialects, to following sonorant in North Aeolic. E.g. ahwōs 'dawn' > āwōs or awwōs, -ohyo 'genitive singular' > -ọ̄yo (whence -ọ̄o) or -oyyo

A. yw and yh assimilate to yy.

II Proposed alternative rules:

1. s before vowel or resonant and not preceded by obstruent yields h. E.g.

so > ho
srewey > hrewey
slag^{w}e > hlag^{w}e
smorya > hmorya
snik^{w}ha > hnik^{w}ha
swe > hwe
syūmēn > hyūmēn ?

tāsōn > tāhōn
trasrōn > trahrōn
kheslioy > khehlioy
esmi > ehmi
phawesnos > phawehnos
seswōtha > hehwōtha
tosyo > tohyo

ekatharsa > ekatharha
estelsa > estelha
egamsa > egamha
ekrinsa > ekrinha
awsōs > awhōs
pheroyso > pheroyho

2. Medial h assimilates to a neighboring consonant: hence trarrōn, ekatharra, khellioy ... pheroyyo. (This may be part of a more general rule, which includes the loss of intervocalic h. It is earlier than the operation of Grassmann's Law in Greek.)

3. Consonant + y yields long palatalized consonant (Cy > ĆĆ). E.g.

thakhyo(h)a > thaḱḱo(h)a (> *thatšoa > tháttō, thássō)
hmorya > hmoŕŕa
alyos > aĺĺos
krinyō > krińńō
phanyō > phańńō
g^{w}amyō > g^{w}ańńō
kaẃyō > kaẃẃō
(hyūmēn > h́ūmēn > hūmēn ?)

This rule is later than rules 1 and 2, because medial *sy becomes yy, which would hardly be possible if *sy had become śś by rule 3 before operation of rule 1, or if hy had become h́h́ by rule 3 before operation of rule 2. (But rule 3, like rule 2, is earlier than the operation of Grassmann's Law in Greek.)

4. ẃẃ yields yy; e.g. kaẃẃō > kayyō. (Linear B spelling suggests that this had happened, at least in Mycenaean, by 1200 b.c.)

5. ńń and ŕŕ are depalatalized (but not ĺĺ); the glide between a preceding low central or mid back vowel (i.e. a or o) and these becomes phonemic, in which case the resonant itself is realized as short. E.g.

without phonemic glide

krińńō > krinnō
pluńńō > plunnō
kteńńō > ktennō

oyktiŕŕō > oyktirrō
olophuŕŕomay > olophurromay
pīweŕŕa > pīwerra

with phonemic glide

phańńō > phaynō
ankońńa > ankoyna

kathaŕŕō > kathayrō
hmoŕŕa > hmoyra

(This rule appears not to have operated in the Mycenaean of 1200 b.c., but the evidence is not conclusive.)

A. If words like boúlomai 'I will', opheílō 'I owe', eílomai 'I am compréssed' originally contained -ln-, then ln in these words was assimilated to ll at some time prior to rule 6. (But olnūmi 'I slay' and pelnamay 'I approach' could not be otherwise analyzed than as nasal presents, and so escaped this assimilation.)

6. Non-palatal(ized) long resonants were shortened outside North Aeolic, lengthening a preceding vowel. E.g.

RR by rule 2:

trarrōn > trārōn
khellioy > khẹ̄lioy
emmi > ẹ̄mi
phawennos > phawẹ̄nos
(h)ewwōtha > (h)ẹ̄wōtha

ekatharra > ekathāra
estella > estẹ̄la
egamma > egāma
ekrinna > ekrīna
awwōs > āwōs

RR by rule 5:

krinnō > krīnō
plunnō > plūnō
ktennō > ktẹ̄nō

oyktirrō > oyktīrō
olophurromay > olophūromay
pīwerra > pīwẹ̄ra

RR by rule A:

g^wollomay > g^wọ̄lomay
ophellō > ophẹ̄lō
wellomay > wẹ̄lomay

This is the first of these rules that did not operate in the prehistory of every non-Mycemaean Greek dialect. (Linear B spelling suggests that it had operated in Mycenaean; if so, the evidence for continued existence of ŕ(ŕ) and ń(ń) in Mycenaean requires explanation.)

7. ĺĺ is depalatalized to ll in most dialects, but becomes yl in Cypriote. E.g.

aĺĺo̦ș > allos ailos
Apoḷḷōn > Apollōn
Apellōn > Apeilōn

B. At various times and places and in various ways, new examples of rr, ll, mm, nn arise, later (outside North Aeolic) than the operation of rule 6. E.g.

arsēn > Attic arrēn
olnūmi > ollūmi
leleipmai >leleimmai
Pelopos nāsos > Peloponnāsos

C. At different times in different dialects, intervocalic w is lost, including w in VywV. E.g. aywey > ayey. (By this time the yy resulting from rules 2 and 4 has become phonologically y.)

D. Some cases of intervocalic y (including those arising by rule C, in dialects where rule C has operated)at different times and places disappear or are assimilated to the preceding vowel. E.g. at some time after the composition of the oldest Homeric formulae (if these were not composed in Pelasgiotic Thessalian), in all dialects except Pelasgiotic Thessalian, genitive singular -oyo > -oo > -ǭ.

III Advantages claimed for the proposed alternative rules:

1. Complicated and phonetically unmotivated rules for y becoming h in word-medial position are not needed.

2. Greater use is made of Cy > ĆĆ rule, which is needed anyhow for non-resonant consonants, and to explain outcomes of *my.

3. Metatheses are not needed.

4. Phonetically unmotivated assimilation of yw and yh to yy is not needed.

5. Words like muîa 'fly' from *musya do not have to be explained by analogy or dialect borrowing.

IV Data that would favor Kiparsky's rules:

1. Corinthian ⟨didaiwon⟩ supports development of *wy to yy via yw rather than via ẃẃ. Answer: 6th century Corinthian inscriptions often write w where it was never pronounced. Therefore ⟨didaiwon⟩ can be a hypercorrect writing of [didai̯i̯o:n].

2. Distribution of genitive singular -oio, -oi vs. -ō agrees partly with Kiparsky's rules for development of -osyo to -oyyo in North Aeolic and to -ōo (contracting to -ǭ) elsewhere; and Homer shows no sure example of -oo, which I posit as prestage of -ǭ, but does have one example of -oǭ, which would have arisen by quantitative metathesis of Kiparsky's -ōo. Answer: It is more likely to be accident that it is one subdialect of North Aeolic that failed to replace -oyyo by -oo, than that the rest of North Aeolic borrowed -ō from other dialects, and that words like muîa outside North Aeolic are analogic or bor-

rowed. Homeric -oō occurs in a position where final short vowels can be metrically long; and the lack of unambiguous cases of -oo is an automatic consequence of Homeric meter, which allowed -ō to be substituted in the tradition for any such forms that may have existed.

V Problems in the rules proposed here:

1. Paucity of rules parallel to rule 6 outside Greek. (possible examples in Hebrew and Modern Irish)

2. ĺĺ fails to depalatalize at the same time as ńń. (But Kiparsky does not account for developments of ly either.)

16. Henry M. Hoenigswald, University of Pennsylvania

TYPOLOGY, RECONSTRUCTION, AND THE IE SEMIVOWELS

The relation between the nonsyllabic entities *y *w *m *n *r *l and their syllabic counterparts *i(y) *u(w) *m̥(m) *n̥(n) *r̥(r) *l̥(l) has always, explicitly or otherwise, formed a central problem in Indo-European studies. The various approaches to it have reflected differences in the mastery of the data as well as in the views held both on typology and on the nature of reconstruction. At present the time is ripe for a critical examination of F. Edgerton's influential but not undisputed work (e.g. Lg 19.83-124). Some important points are these: (1) the role of laryngeals (where there is good reason to reconstruct them) as quasi-semivowels both by themselves and in sequence with other semivowels; (2) the behavior of semivowels in word-initial 'consonant' groups in the light of A. Sihler's critique of Edgerton's arguments (Lg 45.248-73); (3) the non-uniform behavior of different semivowels sequences (e.g., in Skt terms, tr̥ṇa hima but not -r̥y-; the absence of Gk *-arV- *-a[y]V- *-awV- *-a[H]V- from '*-n̥rV-' '*-n̥yV-' '*n̥wV-' '*n̥HV' etc., and their replacement by -anrV- anyV -anwV-) -a n V-; (4) certain more or less allophonic matters not covered by Edgerton's rules (e.g. Skt navya- but not, except in foreign material, -oya-). It seems possible to conclude that Sievers' and Edgerton's findings hold good in many ways, that in some instances Sievers' law may even be extended to cover semivowels occurring before consonants (Gk -ra-/-ar-), but that the different semivowels and their sequences, far from behaving alike, are subject, from proto-IE times on down, to specific phonotactic restrictions, in word-initial occurrence and otherwise.

17. Thomas W. Juntune, Michigan State University

ON GERMANIC *I AND *E

One of the most controversial issues in recent studies of Early Germanic is the phonological status of *i and *e. Because of the high degree of predictability of their occurrence in terms of the following consonant and vowel segments, it had been concluded that they were non-distinctive in Proto-Germanic. The fact that perfect complementation could not be reconstructed was explained in terms of analogical levelling within paridigms, in analogy to the almost parallel alternations of *u and *o, and *eo and *iu. More recently it has been shown that North Germanic and Old English give little evidence for the raising of *e before *u, a change which is necessary if *i and *e were to have merged.

This paper will re-examine this problem using primarily the material of Old High German which most consistently shows the assumed changes. Two points will be stressed: a) the raising of e to i before u was a specific OHG (and OS) change, for it occurred also before the secondary -u which developed from *ô, and b) the presence of both i and e in unstressed syllables shows that they must have remained distinct, even though their occurrence in stressed syllables might be highly predictable. Analysis of phonological processes in terms of the features involved, rather than in terms of indivisible segments, will clarify the process itself, enable one to distinguish between like and unlike events, and determine the relative chronology of the changes.

18. Charles E. Cairns, University of Texas at Austin

TRUBETZKOY'S ANALYSIS OF ATTIC GREEK: SOME FUNDAMENTAL PROBLEMS FOR MARKEDNESS THEORY

Trubetzkoy's approach to phonological theory -- as exemplified here by his partial analysis of the phonological structure of Attic Greek stem morphemes -- raises questions which are basic to contemporary phonological theory. These questions involve the nature of the universal phonetic system, the form and content of phonological universals, and the role of the notion of markedness in the phonological component of a universal theory of linguistic descriptions.

The analysis of the Attic Greek problem in the *Grundzüge* is in terms of marked vs. unmarked oppositions. The distributional constraints are captured by a set of neutralization rules (N-rules). It is the function of N-rules to prohibit the marked member of the neutralized opposition from appearing in the position of neutralization. A paradox which Trubetzkoy apparently overlooked in his analysis of the Attic Greek phenomena reveals that phonological context must be taken into account in order to determine which is the marked and which is the unmarked member of the opposition. This suggests the need -- which Trubetzkoy did not recognize -- for a universal set of context-sensitive conventions which relate M-U feature values to their phonetic representations.

If we accept the view of the role of phonetic features in phonology which is implied by the interpretation advocated in this paper, then it would be reasonable to expect to find universal neutralization rules. Evidence is adduced in this paper in favor of such an expectation.

19. George S. Lane, University of North Carolina

THE PROBLEM OF "OBVIOUS" ETYMOLOGIES

"Obvious" etymologies have always been with us. Such were, for example, the presumed connections between Lat. *deus* and Grk. *theós*, between Lat. *dies* and Eng. *day*, between Lat. *habeo* and Goth. *haban*, etc., to mention only a few. These now of course appear ridiculous to the trained Indo-Europeanist, though attempts to salvage the latter comparison are still not infrequent. But others that violate all established phonetic laws are still with us, e.g. Goth. *wulfs*, etc. : Skt. *vr̥kas*; or Goth. *dags* 'day' : Lith. *dãgas* 'heat' (as derived from **dheg*^{w}*h*- 'burn'; Goth. *hals*, etc. 'neck' : Lat. *collum* (as from **k*^{w}*el*- 'turn'), etc. Of course the more ambiguous the phonology of a language is and the less well its phonetic laws are established, the easier it is to find "obvious" etymologies. This makes Tocharian an easy victim. For example the following are often quoted without regard to the problems involved: A *pe*, B *paiye* 'foot' (: Lat. *pēs*, etc.), A *poke*, B *pokai* 'arm' (: Grk. *pē̃khus*, etc.), A, B *pont*- 'all' (: Grk. *pant*-), A, B *tāk*- 'be' (: Grk. *éstēka*), A, B *yok*- 'drink' (: Lat. *aqua*), and others.

This paper proposes to examine a few of these "obvious" etymologies, both some that have been with us for a long time and others that have more recently arrived in the standard lexica used by the student of the various Indo-European languages. It is hoped to be possible to reject them entirely or to arrive at a plausible explanation of their phonology.

20. Ronald W. Langacker, University of California at San Diego

THE VOWELS OF PROTO UTO-AZTECAN

The two major works concerning the reconstruction of the Proto Uto-Aztecan sound system are in accord with regard to four of the five vowels to be reconstructed for the proto language (*i, *a, *o, *u). They disagree, however, on whether the fifth vowel should be identified as *e or as *ɨ (a high, non-front, unrounded vowel); the reflex of this fifth proto vowel is *e in some daughters, but it is *ɨ in approximately the same number of daughters. Various arguments for selecting one vowel or the other are critically examined. It is concluded that *ɨ is the proper reconstruction on the basis of the evidence currently available.

21. Dale I. Purtle, American University

SOME SPECULATIONS ON THE GENETIC RELATIONSHIP OF SOUTHEAST ASIAN LANGUAGES TO SINO-TIBETAN

This paper presents the results of an investigation into the possible genetic relationships of Tai-Kadai, Sino-Tibetan, Austronesian and Malayo-Polynesian. The conclusion of the paper is that these languages are all members of one family, and that Tai-Kadai, Austronesian and Malayo-Polynesian are more closely related than has been previously reported. Lexical materials examined are taken from Tibetan, Kachin, Mandarin, Cantonese and the six national languages of mainland Southeast Asia.

The supporting evidence for these conclusions is exclusively phonological, although the languages in question share a large number of common grammatical features. The phonological evidence is of two types: cognates and the development of tonal systems from non-tonal systems.

The list of cognates, based on regularly recurring sound changes, includes such items as: frog, foam, rind, circle, dust, to cough, to snore, to pare, to fly, to blow, to be swollen, to dip-soak, to pinch, etc.

Tonal systems develop from non-tonal systems through a two-way split in the vowel system (vowel register) or in the consonant system (voiceless vs. voiced). Tone contour in the modern languages is the sum of the initial and final consonants and vowel length, where differentiated, in an earlier non-tonal stage. This feature is clearly demonstrable in Tibetan between written Tibetan and modern dialects, in Mon-Khmer between Cambodian and Vietnamese, in Malayo-Polynesian-Tai-Kadai between Malay and Thai.

The close relationship between Tai-Kadai, Austronesian and Malayo-Polynesian can be shown through the large number of commonly shared cognates which include the following: day, eye, bladder, belly, tree trunk, lime, chaff, bud, to smile, to hiccough, to yawn, to hear, to hold, to flicker, to whistle, etc. and through the possibility of determining the tone contours of Vietnamese and Thai cognates of Malay words.

22. Charles-James N. Bailey, University of Hawaii

A NEW INTONATIONAL FEATURE AND THEORY TO ACCOUNT FOR PAN-ENGLISH AND ALL IDIOM-PARTICULAR PATTERNS

The point of departure is the assumption that language-users do not store long lists of intonational patterns, but that there can be factored out a small number of gestures whose meaningful interactions account for the patterns. Lieberman's (1965) study showed that it is shapes, not pitches, that are most relevant. The present study shows that with a very few simple but carefully chosen features it is possible to describe the array of attested English patterns and to separate their pan-English aspects from those which are peculiar to given idioms (including male-female differences). This analysis has been checked extensively with British R.P. data, with the author's Southern States data, and with Northern States materials; occasionally data from German and French are mentioned.

Except in the cadence, the background pattern on which the relative highs and lows of English accent are superimposed is constituted out of a ternary [range] feature that bundles together pitch phenomena, tempo changes, and loudness. The [range] feature is the key to the present analysis. Two sources of the [range] and cadence features are indicated; emphasis is distinguished from high-lighting. Two plain and two complex cadences, which form natural classes in the rules, are constituted out of ternary [rising onset] and [high] features. Four special rules modify the outputs in some idioms. Two cadences have different shapes when co-occurring with one of the marked ranges. Subtle evidence from the patterns shows the advantages of the present analysis. Evidence from recent physiological experimentation is also cited. The occurrence and shapes of gliding tones are correctly predicted, and non-occurring contours are correctly precluded. Tempo and rhythm are also dealt with.

23. R. E. Longacre, Summer Institute of Linguistics

SENTENCE STRUCTURE AS A STATEMENT CALCULUS

The predicate calculus has its linguistic analogue in clause structures. The statement calculus has its linguistic analogue in sentence structures. Sentence structures are combinations of clauses in patterns not reducible to the structure of a single clause. The simple sentence represents, however, an identity value of clause combination.

Clauses combine in sentences in two ways: (a) peripheral-nuclear combinations; and (b) nuclear combinations. Peripheral elements of the sentence include not only clauses but other elements such as Vocative, Exclamation, and Sentence Conjunction. The periphery also includes, however, Sentence Margins which express such relations as prior time, concurrent time, subsequent time, condition, concession, purpose, cause, and circumstance. The structures expounding such margins may be single clauses or sentences. Nuclear combinations of clauses express such primitive relations as: coordination, antithesis, alternation, and quotation. Further sentence types are obtained: (a) by deriving one type from another (e.g. Indirect Quote from Direct Quote), (b) from reworking a Sentence Margin + Nucleus into a new nucleus, (c) from combining two consecutive sentences in a paragraph into a nuclear sentence pattern, and (d) from partially merging two juxtaposed clauses. A universal scheme, the sentence neighborhood, summarizes all possible sentence types in all languages.

24. Paul M. Postal, IBM Watson Research Center

PLURALITY AND COORDINATION

It has been fairly well established that there are general conditions, partially statable in terms of the notion subordinate clause, or some near equivalent, determining when an English coreferential pronoun can have its definite antecedent nominal (NP) lying on its right. Roughly, such Backwards pronominalization is possible when: (i) the pronoun is in a clause subordinate to that in which the antecedent NP occurs; a typical illustrative paradigm follows, where identical subscripts indicate presupposed coreference, and '*' indicates cases where coreferential linkages are blocked:

(ii) a Harry$_i$ will win, if he$_i$ tries harder
b *he$_i$ will win, if Harry$_i$ tries harder
c if Harry$_i$ tries harder, he$_i$ will win
d if he$_i$ tries harder, Harry$_i$ will win

Principle (i), though requiring considerable amendment, covers subordinate clauses like those in (ii), relative clauses, both appositive and restrictive, and complement constructions.

Given the wide scope and apparent validity of (i), apparent exceptions of a new and far-ranging sort, provided in an extremely interesting paper by Miss E. Edes of Harvard University, are at first depressing. She points out that sentences such as the following are well-formed:

(iii) they$_{i,j}$ left the party after John$_i$ told Sue$_j$ that the cops were coming

She notes the contrast between (iii), with a plural pronoun in the main clause, and:

(iv) *he$_i$ left the party after John$_i$ told Sue that the cops were coming

where the pronoun is singular. On the basis of examples like:

(v) *they$_{i,j}$ left the party after John$_i$ and Sue$_j$ had an argument

Edes concludes that the acceptability of (iii) is a function of the fact that the antecedent NP are split. In the present paper, I argue that this is only partly true and show that the apparent exception to (i) in (iii) is in fact a function of a general principle governing coordinate constructions and can serve, therefore, to justify an analysis of plural pronouns which derives them from underlying coordinate sources.

25. William Labov and Benji Wald, Columbia University

SOME GENERAL PRINCIPLES OF VOWEL SHIFTING

Current instrumental studies of sound changes in progress confirm impressionistic observations of vowel shifts as over-all rotations in phonological space. The simplest expression of such rotations is by n-ary rules. When historical records of known shifts are viewed in the light of such observations, some general principles of vowel shifting emerge. In chain shifts, (1) tense vowels rise, (2) lax vowels normally fall, and (3) u → ü and a → æ, but not the reverse. These unidirectional movements are consistent with a revised model of phonological space in which a single dimension of openness extends from the most open vowel [a] to the most closed [i]. Spectrographic examination of current vowel shifts in American English shows that rising tense vowels can be maintained distinct from lax vowels of the same height in natural speech but not in minimal pair judgments. Such "consistently useless distinctions" do not serve to distinguish words for native speakers, but maintain the identity of word classes in close proximity.

26. George Lakoff, University of Michigan

GLOBAL RULES

Over the past five years it has become clear that phrase structure rules and transformations provide a grossly inadequate characterization of the notion 'rule of grammar'. The problem is this: phrase structure rules and transformations are local; they define well-formedness conditions on individual phrase-markers and on pairs of successive phrase-markers. However, certain rules of grammar are global in nature; they extend over entire derivations, or parts of derivations, and cannot be stated in full generality (if at all) by local operations. I have proposed that rules of grammar be considered as well-formedness conditions on derivations (or 'derivational constraints'). In the most general case, rules of grammar will be global in nature. Phrase structure rules and transformations turn out to be special cases of derivational constraints. From the point of view of linguistic description, the theory of derivational constraints is as much an innovation over transformational grammar as transformational grammar was over phrase structure grammar. Within the time allotted, I will consider a few of the more striking phenomena that require the postulation of global derivational constraints. Some of these are purely syntactic in nature; others involve the interaction of syntax and phonology; still others involve the interaction of syntax and semantic representations.

27. Lauri Karttunen, University of Texas at Austin

A-VERBS AND B-VERBS

There are two groups of verbs that seem superficially alike.

A	B
remember	decide
manage	want
see fit	be ready
have sense	have in mind
etc.	etc.

The facts that distinguish A-verbs from B-verbs include the following:

(i) In asserting or questioning a sentence with an A-verb as predicate, the speaker is simultaneously asserting or questioning the complement. *John managed to open the door* implies *John opened the door*. To ask *Did John manage to open the door?* includes asking *Did John open the door?*

(ii) If an A-verb sentence is negated, it implies negation of the complement. *John didn't remember to open the door* implies *John didn't open the door*. If the complement itself is also negated, the implication is positive. *John didn't remember not to open the door* implies *John opened the door*.

(iii) The sentence with an A-verb predicate and its complement sentence may not contain conflicting time references or locative expressions. It makes no sense to say **John managed to open the door tomorrow*.

It is argued that (i)-(iii) and a number of other facts that distinguish A-verbs from B-verbs are not unrelated and that there is some underlying general principle from which they all follow. I will try to formulate this principle and then discuss its significance in the context of the general problem of deciding what semantic representations ought to represent.

28. Gregory Lee, Ohio State University

THE DEEP STRUCTURE OF INDIRECT SPEECH

Grammarians have recognized for a long time that there are regular correspondences between direct and indirect speech. Jesperson talks about the "changes" one employs to get from direct to indirect speech (The Philosophy of Language). Generative-transformational grammar cannot take over this traditional account without modification, because corresponding sentences with direct and indirect speech are not, in general, cognitive paraphrases. I shall propose that direct speech is transformed into indirect, but that indirect speech also exists at the level of deep structure. Except in the case of certain disambiguating contexts, a sentence with indirect speech will then have two possible deep structures.

29. Mary Gallagher, Queens College of the City University of New York

ACCOUNTING FOR INDIRECT DISCOURSE

Traditional grammarians assume the derivation of indirect discourse from direct discourse. Among the many reasons for abandoning this view is the fact that accepting it entails the marking of complements both for the speaker's belief in the statement quoted and for his belief that the "now" of the statement quoted overlaps his own. These devices would be needed to account for the derivation of sentences (b), (c), and (d), from sentence (a):

(a) John said, "George is here now."
(b) John said that George is here now.
(c) John said that George was here now.
(d) John said that George was here then.

If the traditional view is abandoned, and indirect discourse is described as a type of that - complementation, "now" and other pronouns require no special account. Description of sentences like (c) requires an account of belief, accomplished by marking the verb of the matrix. Evidence from English and other languages shows that this marking is subjunctive and that the English "sequence of tenses" is an irregular sequence of moods.

30. Adrian Akmajian, Massachusetts Institute of Technology

SOME GENERALIZATIONS CONCERNING THE INTERPRETATION OF ANAPHORIC IT

The concern of this paper is the interpretation of anaphoric it in sentences such as the following:

> The publisher paid Jones ten thousand dollars for a new book on grammar, but it could never happen to me.

In this case, it refers back to one portion of the antecedent sentence (i.e. "The publisher paid...ten thousand dollars for a new book on grammar") and specifically excludes another portion (i.e. "Jones"). Such cases show that it can refer back to a non-constituent. We present some of the relevant generalizations underlying the interpretation of such pro-forms. Our analysis rejects Ross's proposed notion of "sloppy identity", which we show produces a grammar which allows a much wider range of interpretations than is actually possible. We propose that the central generalization here involves the notion of 'pairing' or contrast. Specifically, we propose that the anaphoric it refers back to that portion of the antecedent sentence which is out of contrast, and excludes from its interpretation that portion which is in contrast. Thus, in the above example, Jones is in contrast with me, and it is this contrasted portion of the antecedent which is excluded from the interpretation of it. Other examples of this generalization are discussed, along with the question of how contrast can be predicted.

31. Jacob Mey, University of Texas at Austin

IS REFLEXIVIZATION ALWAYS A CYCLIC PROCESS?

Reflexivization in English is usually described as a cyclic process with conditions that can be expressed in terms of constraints such as "command", "bounding", etc. (P. Rosenbaum, English Grammar II, IBM, Yorktown Heights, N. Y., 1968; J. Ross, Constraints on Variables in Syntax, M.I.T. diss., 1967). The present paper raises the question of the universality of such conditions; in particular, what advantages or drawbacks do the various constraints (and, in fact, the notion of cyclicality itself) have in the description of Eskimo reflexive constructions? To answer this question, a particular kind of reflexives (the so-called "possessive" suffixes; J. Mey, "Possessive and Transitive in Eskimo", Journal of Linguistics 6 [1970, in press]) is investigated, and an explanation is sought why Eskimo cannot express simple reflexive notions such as "to kill oneself" using the reflexive forms. Comparison with other languages (e.g. Latin) suggests that we need some additional machinery to account for the Eskimo phenomena of reflexivization; the notion of "commander-in-chief" (i.e. the highest node that commands some other node) is suggested as a possible useful addition to grammatical terminology.

32. Thomas H. Peterson, University of California at Santa Barbara

IMPERATIVES AND PURPOSE AND REASON ADVERBIALS AS COMPLEMENTS OF ABSTRACT VERBS IN MOORE

This paper uses evidence from a non-Indo-European language to support the view that constructions which have previously been considered as semantically and syntactically separate sentence and clause types are related in deep structure to complements of certain basic, universal classes of verbs. In *Abstract Syntax and Latin Complementation* (MIT Press, 1968) R. Lakoff has shown that, in Latin, imperatives and purpose and reason adverbials share identical properties with the sentential complements of certain major verb classes: verbs of *command* (e.g. "to command"), *desiring* (e.g. "to want"), and *declaration* (e.g. "to say" as well as "to mean/entail") respectively.

Mooré, a Niger-Congo language from West Africa, formally distinguishes the three above mentioned verb complement classes and exhibits respective identical properties in imperatives, purpose adverbials, and reason adverbials; e.g. a) same complementizer at the head of both clauses; b) presence/absence of the subjunctive; c) application/non-application of equi-NP-deletion; d) same restrictions on subjects. It is suggested (along the lines of what Lakoff proposes for Latin) that imperatives, purpose adverbials, and reason adverbials are derived from the complements of "abstract" verbs which belong to the above three verb classes but which are deleted in the surface structure. Base structures and derivations are provided as well as an explanation for the close semantic similarity between purpose and reason adverbials (e.g. both can answer to a question using *why*).

HANDOUT

Imperatives and Purpose and Reason Adverbials as Complements of Abstract Verbs in Mooré

Abbreviations: -I= imperfective; -P = perfective; me = declarative marker

1) a) b_i yeela me tí $bamb_i$ kula me. "They$_i$ said that they$_i$ left."
they$_i$ say-P me that they$_i$ leaveP me.

b) a yeel b_i la me tí $bamb_i$ kuli. "He told them to leave."
he say-P them$_i$ la me that they$_i$ leave.

c) a data me tì bamb kuli. "He wants them to leave."
he want-I me that they leave.

2) a) a yeela me tí bamb pa kul ye. "He said that they didn't leave."
he say-P me that they not leave ye.

b) a yeel b la me tí bamb da kul ye. "He told them not to leave."
he say-P them la me that they not leave ye.

c) a data me tì bamb da kul ye. "He wants them not to leave."
he want-I me that they not leave ye.

3) a) a data me n kuli. "He wants to leave."
he want-I me to leave.

b)*a_i data me t̀' a_i kuli.

c)*a yeela me n kuli. (unacceptable as reduction of 1a)

d)*a yeel b la me n kuli. (unacceptable as reduction of 1b)

4) a) tí fo kuli! "Leave!"
that you(sg) leave.

b) tí bamb kuli! "Let them leave!"
that they leave.

c) (tí fo) da kul ye. "Don't leave!"
(that you-sg) not leave ye.

d)*n kuli!

e) kuli! "leave!" (sg)

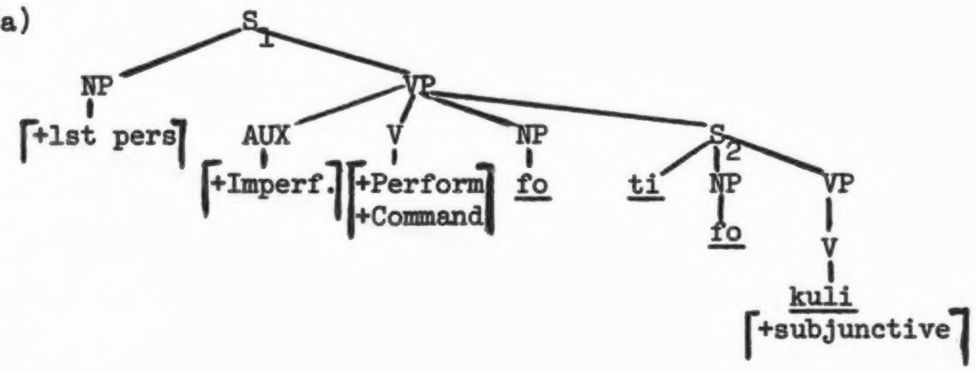
f) kul-y "Leave!" (pl)

5) a)*m yeel m la me tí mam kuli. "*I ordered myself to leave."

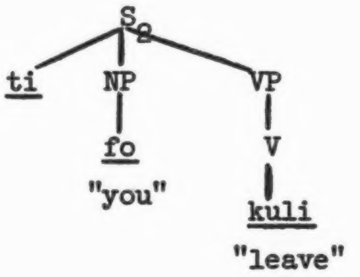
b)*tí mam kuli! "*Let me leave!"

c)*m yeend b la me tí bamb kuli. "I order them to leave."
I say-I them la me that they leave.

6a)


S1
NP
+1st pers
VP
AUX
+Imperf.
V
+Perform
+Command
NP
fo
S2
ti
NP
fo
VP
V
kuli
+subjunctive

6b)


S2
ti
NP
fo
"you"
VP
V
kuli
"leave"

7)a) m kula me tí bamb waa me. "I left because they arrived."
I leave-P *me* because they come-P *me*.

b) m kula me tí bamb pa wa ye. "I left because they didn't arrive."
I leave-P *me* because they not come *ye*.

c) m kula me tí mam bẽẽ me. "I left because I was ill."
I leave-P *me* because I ill *me*.

d)*m kula me n bẽẽ me.

8) a) m kula (me) bamb sẽ wa wã yĩnga. "I left because of their having arrived."
I leave-P(*me*)their *se* come-P *wa* because-of.

b) m kula(me) bamb yĩnga. " I left because of them."
I leave-P(*me*) them because-of.

c)*m kula me tí bamb.

d) fug yĩnga yaa neere. "The (looks of/essence of the)garment is pretty."
garment body is pretty.

9) a) yaa bamb sẽ wa wã yĩnga la m kulyã. "It's because they came that I left."
(it)is their *se* come-P *wa* because-of that I leave-P.

b)*yaa tí bamb waa me la m kulyã.

10) m sẽ kula yĩnga dat n yeela me tí bamb waa me.
my *se* leave-P-*wa* body-of want-I to say *me* that they come-P *me*
"The fact of my leaving means that they have come." or "The fact of my leaving results from their having come."

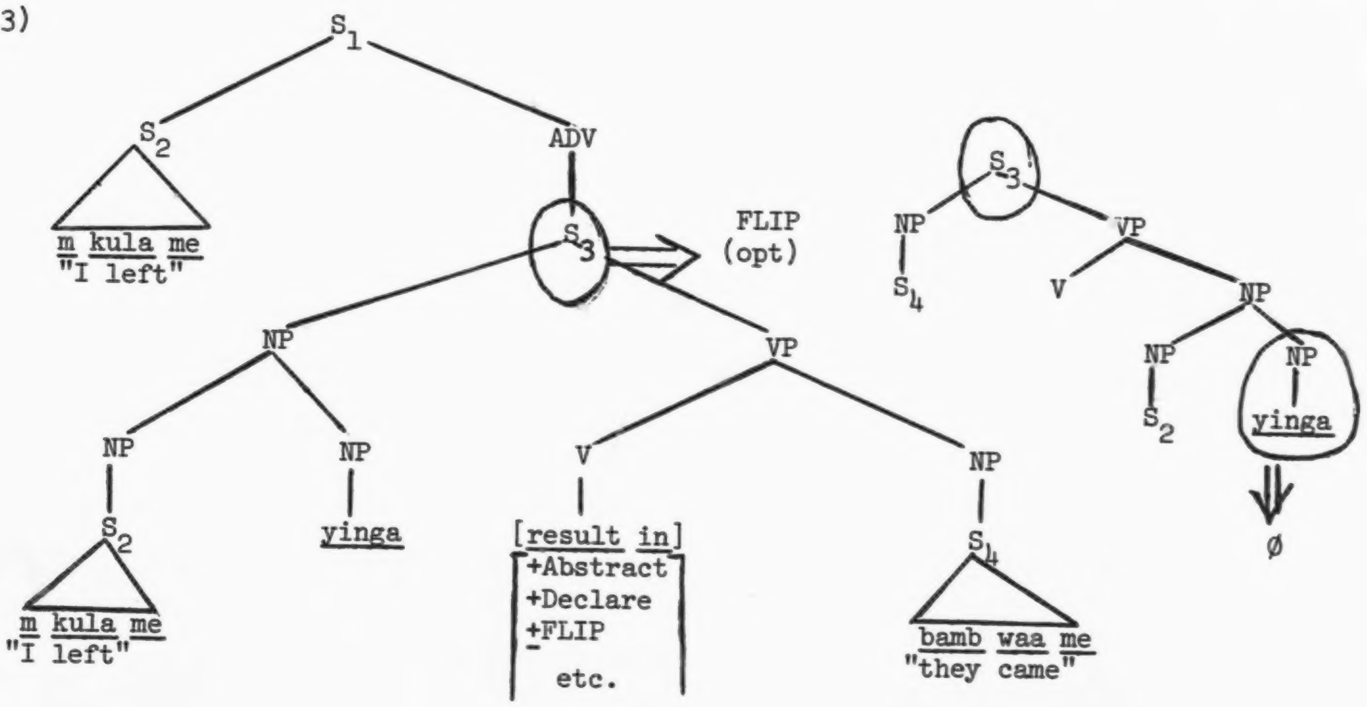
11) a) X because Y = "Y is the cause of/reason for X."

b) X means/entails Y = "Y results in X" or formally: Y X

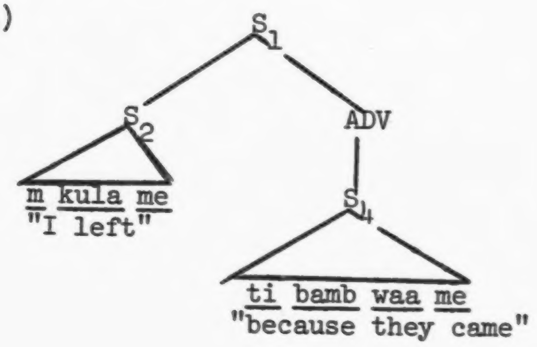
12) a)*m tara kom. ⟹ (ob) kom tara maam. "I'm hungry."
I have hunger hunger has me

b)"A results in B." ⟹ (opt) "B results from A."

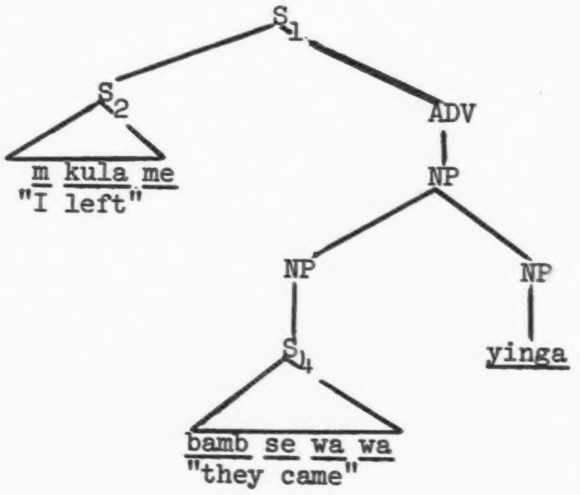
13)


S1
S2
m kula me
"I left"
ADV
S3
FLIP
(opt)
NP
NP
S2
m kula me
"I left"
NP
yinga
VP
V
[result in]
+Abstract
+Declare
±FLIP
etc.
NP
S4
bamb waa me
"they came"
S3
NP
S4
VP
V
NP
NP
S2
NP
yinga
Ø

14a)


S1
S2
m kula me
"I left"
ADV
S4
ti bamb waa me
"because they came"

14b)


S1
S2
m kula me
"I left"
ADV
NP
NP
S4
bamb se wa wa
"they came"
NP
yinga

15) a) m waa me tì bamb kuli. "I came so that they would leave."
I come-P me that they leave.

b) m waa me tì bamb da kul ye. "I came so that they wouldn't leave."
I come-P me that they not leave ye

16) a) m waa me n ná n ges yãmba. "I came (in order) to see you."
I come-P me to be-going to see you.

b)*m waa me tì bamb ná n kuli.

17) a) m waa (me) sẽ nà yilẽ tì bamb kuli (wã). "I came so that they would leave."
I come-P(me) sẽ definitely [desire?] that they leave.

b) m waa(me) sẽ nà yilẽ tì bamb da kul ye. "I came so that they wouldn't leave.
I come-P(me) etcetera that they not leave ye

c) m waa(me) sẽ nà yilẽ n ges yãmba. "I came in order to see you."

d)*m waa (me) sẽ nà yilẽ n ná n ges yãmba.

e) yaa sẽ nà yilẽ tì bamb kul (wã) la m wayã.
(it) sẽ definitely [desire?] that they leave that I come-P
"It's so that they will leave that I have come."

f)*yaa tì bamb kuli la m wayã.

18) yaa bamb kulbã yĩnga la m wayã.
(it) is their leave-ing-wã because-of that I come-P.
a)"It's in order that they may leave that I have come."
b)"It's because of their leaving that I have come."

19) a) a data bamb kulbã. "He wants them to leave."
he want-I their leave-ing-wã

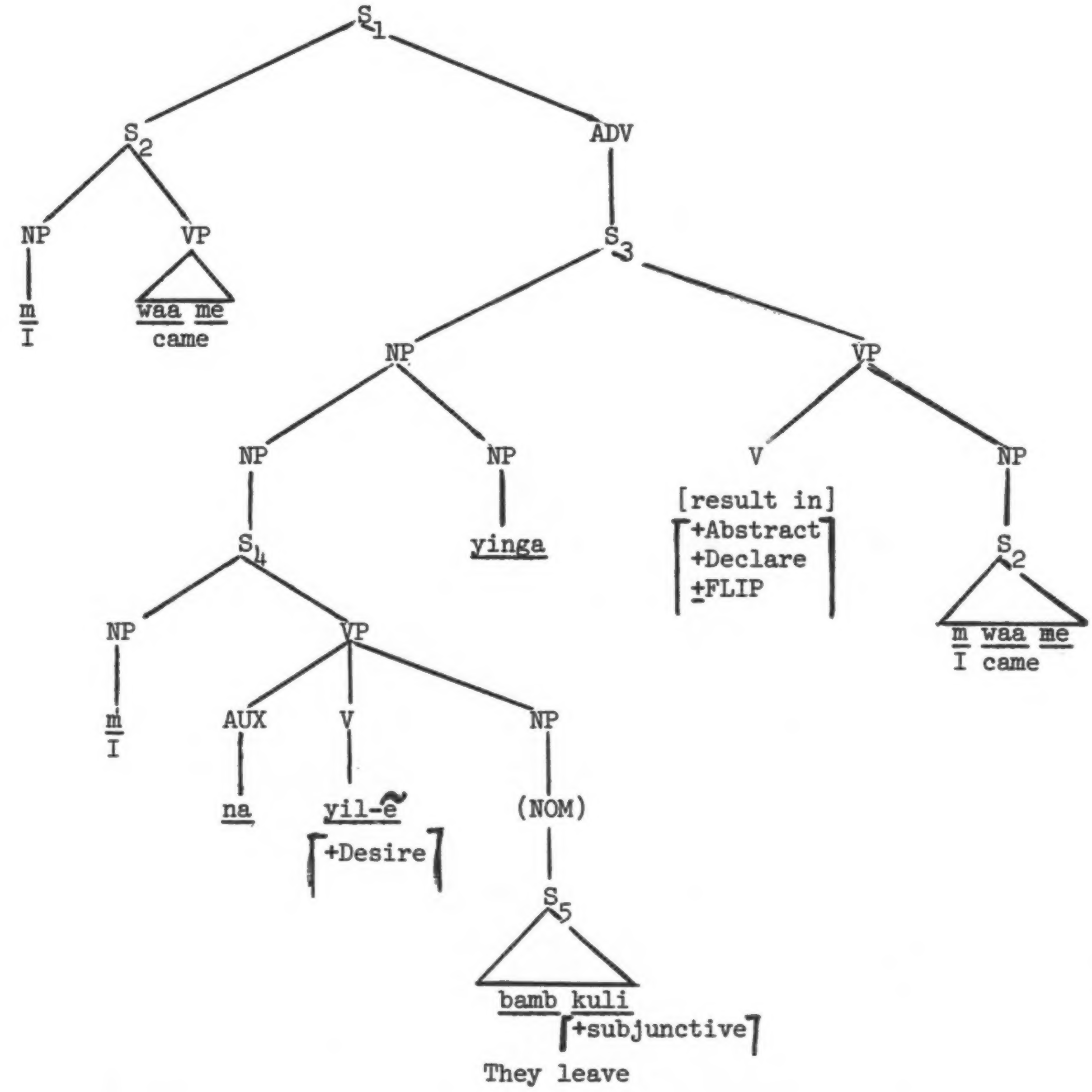
b)*a yeela bamb kulbã.

20) Question: "Why have you come?"

Answer: a) "In order to see you."

b) "Because you called me."

21)



S1
S2
ADV
NP
VP
m
I
waa me
came
S3
NP
VP
NP
NP
V
NP
S4
yinga
[result in]
+Abstract
+Declare
±FLIP
S2
m waa me
I came
NP
VP
m
I
AUX
V
NP
na
yil-ẽ
+Desire
(NOM)
S5
bamb kuli
+subjunctive
They leave

22)

$$S_3 \Rightarrow \left\{ \begin{array}{l} (1)\,[_{NP}[_{NP}[_{NOM}[_{S_5}\underline{\text{bamb}}\ \underline{\text{kulbã}}]_{S_5}]_{NOM}]_{NP}\ [_{NP}\underline{\text{yĩnga}}_{NP}]]_{NP} \\ \left\{ \begin{array}{l} (2a)\ [_{NP}[_{S_4}\ \underline{\text{sẽ}}\ \underline{\text{nà}}\ \underline{\text{vilẽ}}\ [_{S5}\ \underline{\text{tì}}\ \underline{\text{bamb}}\ \underline{\text{kuli}}]_{S5}]_{S_4}]_{NP} \\ (2b)\ [_{NP}[_{S_5}\underline{\text{tì}}\ \underline{\text{bamb}}\ \underline{\text{kuli}}_{S_5}]_{NP}] \end{array} \right\} \end{array} \right\}$$

33 Teng Shou-hsin, University of California at Berkeley

COMITATIVE VERSUS PHRASAL CONJUNCTION

It has been proposed by Lakoff and Peters (1967) that comitative structure is derived from phrasal conjunction, and Fillmore (1968) proposes the reverse. In the light of this disagreement, Mandarin Chinese is here investigated particularly because of the fact that the phrasal conjunctor and the comitative marker have the same phonetic form. Actually, numerous sentences containing this marker are four-way ambiguous, and the comitative structure is observed to be just one of the two sub-types of 'association' (Chao 1968), the other being here proposed as 'uni-directional', to which many comitative sentences discussed in Peters (1966) belong. For every comitative sentence, there is a corresponding phrasal conjunction sentence (pointing to the close relatedness), but not vice versa, strongly pointing to the infeasibility of Fillmore's proposal. It follows that a grammar achieves economy by deriving both structures from one underlying structure; but that they should not be postulated as syntactically variant forms of an underlying semantic structure is evidenced by the semantic feature [principal], which is present in comitative but not in phrasal sentences, and by the fact that the feature [principal] is systematically accompanied by a set of syntactic characteristics. Thus it is here proposed that comitative is derived from phrasal when [principal] appears under any, but not all, nouns as an inflectional unit. The absence or presence of [principal] then accounts for the different semantic interpretations and different surface structures.

HANDOUT

Comitative versus Phrasal Conjunction

A. GEN as a sentential conjunctor: (may not be negated)

a. Zhang San gen Li Si (dou) yao chu qu.
Both Zhang San and Li Si want to go out.

b. Wo gen ta (dou) bu zuo shi.
Both he and I are not working.

c. Ding Yi gen Wang Er (dou) xihuan he cha.
Both Ding Yi and Wang Er like to drink tea.

B. GEN as a phrasal conjunctor: (may not be negated)

a. Zhong Zheng Lu gen Zhong Shan Lu pingxing.
Zhong Zheng Road runs parallel to Zhong Shan Road.

b. Wo gen ta bu yikuar jin cheng.
He and I are not going to town together.

c. Zhang San gen Li Si zai yikuar shangliang.
Zhang San and Li Si are discussing (together).

C. GEN as a comitative conjunctor (bi-directional): (may be negated)

a. Xiao Ming gen ta baba (yikuar) dao jieshang qu.
Xiao Ming is going to town (together) with his father.

b. Zhang San mei gen Li Si chaoguo jia.
Zhang San never quarrelled with Li Si.

c. Wo xiang gen ta (yikuar) chang ge.
I would like to sing with him.

D. GEN as a uni-directional conjunctor: (may be negated)

a. Zhang San gen Li Si jie qian.
Zhang San is borrowing money from Li Si.

b. Wo mei gen ta dacha.
I did not interrupt him.

c. Li Si gen tade haizi jiang gushi.
Li Si is telling stories to his children.

E. GEN as a full verb, meaning 'to follow': (may be negated)

a. Gou zheng tian gen (zhe) zhuren.
The dog is following his master all day.

b. Xiao Ming gen (zhe) laoshi zou shang tai qu.

Xiao Ming is following his teacher to the platform.

c. Ni weishenmo bu gen zhe wo zou?

Why aren't you following me?

F. Multiple-ambiguous sentences:

a. Zhang San gen Li Si xia chuan.

(i) Zhang San gen Li Si dou xia chuan.

Both Zhang San and Li Si are disembarking.

(ii) Zhang San gen Li Si yikuar xia chuan.

Zhang San and Li Si are disembarking together.

(iii) Zhang San xiang gen Li Si (yikuar) xia chuan.

Zhang San would like to disembark with Li Si.

(iv) Zhang San genzhe Li Si xia chuan.

Zhang San is disembarking after Li Si.

b. Ding Yi gen Wang Er dao jieshang qu.

(i) Ding Yi gen Wang Er dou dao jieshang qu.

Both Ding Yi and Wang Er are going to town.

(ii) Ding Yi gen Wang Er yikuar dao jieshang qu.

Ding Yi and Wang Er are going to town together.

(iii) Ding Yi yao gen Wang Er dao jieshang qu.

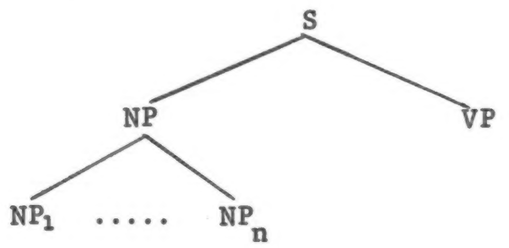
Ding Yi wants to go to town with Wang Er.

(iv) Ding Yi genzhe Wang Er dao jieshang qu.

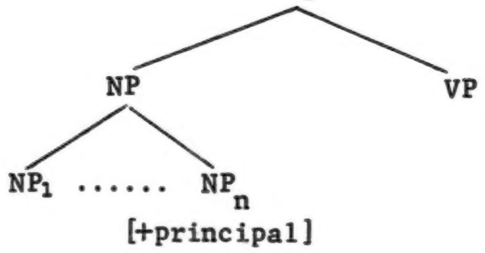
Ding Yi is following Wang Er to town.

G. Underlying structures:

a. Phrasal conjunction:



b. Comitative:


S
NP
VP
NP1 ...... NPn
[+principal]

(see constraint below)

c. Derivation of [principal]:

Noun → [+principal] / when NP is directly dominated by S

Constraint: [+principal] may occur under any but not all nouns

34. Larry M. Hyman, University of California at Los Angeles

THE ROLE OF BORROWING IN THE JUSTIFICATION OF PHONOLOGICAL GRAMMARS

Current practice in generative phonology, in contrast with its theoretical aims and goals, has generally been characterized by a lack of concern with psychological reality. Instead, considerations such as 'simplicity' (feature counting, distributional regularities, etc.) and the as yet ill-formulated concept of markedness, in addition to some out and out attempts to parallel the course of historical reconstruction, have come to take the place of direct psychological verification of proposed solutions. The few exceptional attempts in this latter direction have been largely experimental in nature (Contreras & Saporta [1960], Ladefoged & Fromkin [1967], Zimmer [1969]). While experimentation will doubtless provide the ultimate universal means of gaining insight into the mental aspects of phonology, in this paper attention is focused on the data of borrowing. Data from Nupe (a Kwa language of Central Nigeria), which has borrowed heavily from Hausa (a Chadic language of Northern Nigeria and the Niger Republic) demonstrates that languages that have extensively borrowed thereby betray the 'linguistic consciousness' of the speakers of the borrowing language. The process of 'lexicalization' in Nupe of incoming Hausa words of distinct phonological properties exhibits a significant degree of consistency that is equivalent to (and would be recoverable from) well-designed experimentation, and observation of second language acquisition ('foreign accents'). Thus it is shown that borrowing accurately reveals the reality of the morpheme structure conditions as well as the correct form of the internalized phonological rules of Nupe. Finally, lexicalization provides strong support for abstract phonology.

2

35. Matthew Chen and Hsin-I Hsieh, University of California at Berkeley

THE TIME VARIABLE IN PHONOLOGICAL CHANGE

In an attempt to account for irregular sound changes, the authors propose to examine the time variable in phonological change. Data from various Chinese dialects, based principally on DOC (Project 'Dictionary on Computer', U. C. Berkeley), exhibit some characteristics of incomplete sound change. The authors will suggest that sound change is gradual not only socio-geographically (speaker-to-speaker spread) but also lexically (lexeme-to-lexeme diffusion) and that free variation and spontaneous phonemic split may be viewed as sound change in progress. Furthermore, a careful comparison of historical records and modern reflexes shows that sound changes do not always take place one after another, as serially ordered phonological rules might lead some to believe, but rather different trends of phonological change may overlap along the time dimension and interfere with each other in the course of operation, causing thereby 'residues' to regular sound change.

Lexical diffusion and competing sound changes provide a theoretical basis for introducing optional and minor rules as well as disjunctive rules for which no phonological (or morphological) condition can be ascertained. The subcategorization of phonological rules will necessitate rule features in the lexical representation of 'irregular' lexical items.

HANDOUT

Time Variable in Phonological Change

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                                          DOC MASTER FILE

0001      070-        4        H K3 WI 18
    PEKING            1              I
    JI-NAN            1              I
    XI-AN             1              I
    TAI-YUAN          4          I   E3      Q
    HAN-KOU           1B             I
    CHENG-DU          1B             I
    YANG-ZHOU         4          I   E3
    WEN-ZHOU          4          I   A I
    CHANG-SHA         4              I

0002      253-        1   T      K4  XG 13
    PEKING            1   T          I       V
    JI-NAN            1   T          I       V
    XI-AN             1   T          I       V
    TAI-YUAN          1   T          I       V
    HAN-KOU           1   T          I       N
    CHENG-DU          1   T          I       N
    YANG-ZHOU         1   T          I     Z
    WEN-ZHOU          1   T          E       V
    CHANG-SHA         1   T          I       N

0003      066-        4   TS   H K3  NN 18
    PEKING            1   TCPH       I
    JI-NAN            1   TCPH       I
    XI-AN             1   TCPH       I
    TAI-YUAN          4   TCPH   I   E3      Q
    HAN-KOU           1B  TCPH       I
    CHENG-DU          1B  TCPH       I
    YANG-ZHOU         4   TCPH   I   E3      Q
    WEN-ZHOU          4   TS   H     A I
    CHANG-SHA         4   TS   H     I

0004      227-        2   DJ     K3  YG 6
    PEKING            3   TSR        A       V
    JI-NAN            3   TSR        A       V
    XI-AN             3   TSR        A       V
    TAI-YUAN          3   TS         A2    Z
    HAN-KOU           3   TS         A       V
    CHENG-DU          3   TS         A       V
    YANG-ZHOU         3   TS         A1      V
    WEN-ZHOU          2B  DZP        I
    CHANG-SHA 1       3   TSR        A       N L
    CHANG-SHA 2       3B  TSR        A       N

0005      170-        1   S      K1  WM 5
    PEKING            1   S          A       N
    JI-NAN            1   S          A     Z
    XI-AN             1   S          A     Z
    TAI-YUAN          1   S          AE    Z
    HAN-KOU           1   S          A       N
    CHENG-DU          1   S          A       N
    YANG-ZHOU         1   S          E2    Z
    WEN-ZHOU          1   S          A
```

TABLE 1. DOC Master File

13. 媧	kuai	kuai	kua	kuai	kua	ua		kua	kua
14. 蛙	ʔuai	ʔuai	ʔua	ʔuai	ʔua	ua	uaei	ua	ua
15. 灑	ʂje	ʂai	ʂa	ʂai	ʂa	ʂa	ʂaei	ʂa	ʂa
16. 差	tʂje	tʂ'ai	tʂ'a	tʂ'ai	tʂ'a	tʂ'a		tʂ'a	tʂ'a
17. 佳	kai	kai		kai	ka	kia		kia	tɕia
18. 罷	b'ai	b'ai		b'ai	b'a	pa		pa	pa
19. 涯	ŋai	ŋai		ŋai	ŋa	ia	iaei	ia	ia
20. 畫	ɦuai	ɦuai		ɦuai		xua		xua	xua
21. 卦	kuai	kuai		kuai		kua		kua	kua
22. 掛	kuai	kuai		kuai		kua		kua	kua
23. 娃	ʔai	ʔai		ʔai		ua		ua	ua

TABLE 2.

	I		II		III		IV		V		VI	
	Qie-yun		Guang-yun		Ji-yun		Zhong-yuan yin-yun		Yun-lue Yi-tong		Standard Mandarin	
	706		1008		1038		1324		1442		1962	
1. 牌	b'ai	b'aei	b'ai	b'aei	b'ai	b'aei		p'aei		p'aei		p'ai
2. 鞋	ɦai		ɦai	ɦaei	ɦai	ɦaei		xiaei		xiaei		ɕie
3. 街	kai		kai	kaei	kai			kiaei		kiaei		tɕie
4. 籭	ʂai		ʂai	ʂaei	ʂai	ʂaei		saei		ʂaei		ʂai
5. 騧	kuai	kua	kuai	kua	kuai	kua				kua		kua
6. 蝸	kuai	kua	kuai	kua	kuai	kua		ua		kua		kua
7. 洼	ʔai	ʔua	ʔai	ʔua	ʔai ʔuai	ʔua		ua		ua		ua
8. 哇	ʔai	ʔua	ʔai	ʔua	ʔai ʔuai	ʔua		ua		ua		ua
9. 靫	tʂ'ai	tʂ'a	tʂ'ai	tʂ'a	tʂ'ai	tʂ'a		tʂ'a		tʂ'a		tʂ'a
10. 叉	tʂ'ai	tʂ'a	tʂ'ai	tʂ'a	tʂ'ai	tʂ'a		tʂ'a		tʂ'a		tʂ'a
11. 釵	tʂ'ai	tʂ'a	tʂ'ai	tʂ'a	tʂ'ai	tʂ'a	tʂ'aei		tʂ'aei		ts'ai	
12. 詿	kuai	kua	kuai	kua	kuai	kua				kua		kua

TABLE 2 (cont'd)

		Guang-yun	Zhong-yuan yin-yun		Xi-ru er-mu-zi		Standard Mandarin	
		1008	1324		1626		1962	
1.	百	paek	pai		pě		pai	puo
2.	拍	p'aek	p'ai		ʻpě	pǒ	p'ai	p'uo
3.	白	b'aek	pai		pě		pai	puo
4.	宅	ɖ'aek	tʃai		çě		tʂai	tʂɤ
5.	麦	mɛk	mai		mě		mai	muo
6.	摘	tɛk	tʃai		çě		tʂai	tʂɤ
7.	北	pək	pei		pě		pei	puo
8.	得	tək	tei		tě		tei	tɤ
9.	賊	dʐək	tsei		çě		tsei	tsɤ
10.	塞	sək	sei		sě		sei	sɤ
11.	黑	xək	xei		hě		xei	xɤ
12.	色	ṣiək	ʃai		sě		ʂai	ʂɤ ,sɤ
13.	薄	b'ɑk	pɑu	po		pǒ	pau	puo
14.	落	lɑk	lɑu	lo		lǒ	lau	luo
15.	鑿	tsɑk	tsɑu	tso		çǒ	tsau	tsuo
16.	鶴	ɦɑk	xɑu	xo		hǒ	xau	xɤ
17.	雀	tsiɑk	ts'iau			çiǒ	tɕ'iau	tɕ'ye
18.	脚	kiɑk	kiau			kiǒ	tɕiau	tɕye
19.	約	ʔiɑk	iau	io		iǒ	iau	ye
20.	鑰	iɑk	iau	io		iǒ	iau	ye
21.	藥	iɑk	iau	io		iǒ	iau	ye
22.	剥	pak	pau			pó	pau	puo
23.	角	kak	kiau			kiǒ	tɕiau	tɕye
24.	學	ɦak	xau	xio	hiao	hiǒ	ɕiau	ɕye

TABLE 3.

36. Alexander Hull, Duke University

ON THE ORIGINS OF THE MODERN FRENCH VERB SYSTEM

It is usually stated that during late medieval French the erosion of verb endings by progressive loss of final consonants caused a shift of the burden of signalling person and number from the ending to the subject pronoun, which became a kind of verbal prefix. However, the evidence shows that this process, virtually complete in the standard language today, met with considerable resistance in the beginning. Several alternative solutions were tried. The most widespread was a system in which person was distinguished by prefixes and number by endings: /ž parl/ 'I speak'; /ž parlõ/ 'we speak'; /i parl/ 'he speaks'; /i parlõ/ 'they speak.' The starting point here was the remodelling of the third-person-plural form, most important since the third-person subject pronouns, singular and plural, were homonymous. The construction *je parlons* has been most persistent in northern rural French. Analogous development in northern Italian dialects probably shows French influence.

This system, originating in lower-class speech, had a fatal flaw: it was incompatible with more conservative upper-class usage, since *je parlons* could be, and often was, misinterpreted as a singular. Hence lower-class urban speakers, more often obliged to communicate with users of the cultivated language, abandoned it during the 16th and 17th centuries, and such forms came to be a shibboleth of ridiculed rural patois. The extension of *on parle* to replace the now overly elegant *nous parlons* and the unacceptable *je parlons* must date from this period, originating no doubt in Paris, but influenced by Norman and Picard dialects where phonetic developments had led to confusion of *on* and *nous*. It has ever since remained the usual form in familiar speech, and has been widely propagated and imitated both within and outside the limits of French proper.

HANDOUT

On the Origins of the Modern French Verb System

A. 13th-century paradigms:

1.	šant	antrə	vwe	vant	šantwe
2.	šantəs	antrəs	vwes	vans	šantweəs
3.	šantə	antrə	vwet	vant	šantwet
4.	šantons	antrons	veons	vandons	šantiyens
5.	šantes	antres	vees	vandes	šantiyes
6.	šantənt	antrənt	vweənt	vandənt	šantweənt

B. Phonetic developments obscure ending distinctions, analogical levelings occur, unstressed pronouns become person markers (13th-14th centuries):

1.	žə	šantə	ž	antrə	3.	i vwe(t)
2.	tü	santə(s)	t(ü)	antrə(s)	6.	i vwe:(t)
3.(m.)	i	šantə	il	antrə		
(f.)	elə	šantə	el	antrə	3.	i van(t)
Indef.	on	šantə	on	antrə	6.	i vandə(t)
4.	nu	šanton(s)	nuz	antron(s)		
5.	vu	šante(s)	vuz	antre(s)	3.	i šantwe(t)
6.(m.)	i	šantə(t)	il	antrə(t)	4.	nu šantyen(s), -tyon(s)
(f.)	elə	šantə(t)	eləz	antrə(t)	6.	i šantwe:(t), -twen(t)

C. First restructuring in popular speech (14th-15th centuries).

1.	žə	šantə	ž	antrə	3.	i vwe(t)
2.	tü	šantə(s)	t	antrə(s)	6.	i vweyon(t)
3.(m.)	i	šantə(t)	il	antrə(t)		
(f.)	a	šantə(t)	al	antrə(t)	3.	i van(t)
Indef.	on	šantə(t)	on	antrə(t)	6.	i vandon(t)
4.	žə	šanton(s)	ž	antron(s)		
5.	vu	šante(s)	vuz	antre(s)	3.	i šant(w)è
6.(m.)	i	šanton(t)	il	antron(t)	4.	žə šantyon(s), -ten(s)
(f.)	a, i	šanton(t)	al,il	antron(t)	6.	i šantyon(t), -ten(t)

D. Second restructuring in popular speech (16th-17th centuries):

1.	žə	šãt	ž	ãtr	3.	i vwa
2.	tü	šãt	t	ãtr	6.	i vwa(y)
3. (m.)	i	šãt	il	ãtr		
(f.)	a, el	šãt	al,el	ãtr	3.	i vã
Indef.	õ	šãt	õn	ãtr	6.	i vãd
4.	õ	šãt	õn	ãtr		
5.	vu	šãte	vuz	ãtre	3.	i šãtè
6. (m.)	i	šãt	iz	ãtr	4.	õ šãtè
(f.)	i, el	šãt	iz,elz	ãtr	6.	i šãtè

37. Paul M. Lloyd, University of Pennsylvania

ON THE NOTION OF 'CAUSE' IN PHONETIC CHANGE

As long as historical (or "genetic") linguistics limited itself to a description of sound changes in the form of a supposed temporal sequence, e.g. a ⟩ b (however one wishes to interpret the formula), the problem of causation could be ignored. However, when an explanation of sound changes was sought, a closer look at the relation between historical linguistics and other branches of history, especially social history, became necessary. Few historical linguists have given any attention to the relation, probably because they consider themselves to be primarily linguists rather than historians. Ignorance of the problems of historical theory and the philosophy of history has had as an effect the adoption of assumptions about the nature of change and causation that have been discarded in other historical disciplines. I propose to examine briefly the extent to which the theory of historical explanation in other fields can be applied to problems of historical phonetics. Illustrations will be taken from Romance.

HANDOUT

On the Notion of 'Cause' in Phonetic Change

In the philosophy of history the problem of causation continues to be a hotly debated subject. For some historians the notion of 'cause' implies a rigid determinism and therefore must be completely abandoned in serious history. For other historians history is incomprehensible unless it involves the study of the causes of events. The word 'cause' is ambiguous and can be interpreted in various ways.

Although students of historical phonetics have often studied the causes of various phonetic changes, they have rarely given any thought to their underlying assumptions about the nature of 'cause' in general. Nineteenth century historical phonetics was largely concerned with accurate descriptions and sought the causes of phonetic change only in the case of exceptions to general sound laws. The substratum theory was an attempt to explain regular sound changes. In the twentieth century the school of descriptive linguistics tended to seek purely physical causes of sound changes, while structuralism attempted to find causes in the nature of phonological systems. Transformational grammarians today tend to limit themselves to the statement that phonetic changes are changes in grammatical rules, and to say little about the causes of such changes.

Underlying many accounts of phonetic change has been the implicit assumption of mono-causality, i.e. the idea that there can be one and only one cause of any sound change, a presupposition discarded long ago in all other fields of history. A conscious understanding of the nature of historical explanation can lead to a clearer view of phonetic change, although undoubtedly there will be debate about the relative importance of various factors in phonetic change.

The voicing of intervocalic stops in early western Romance will be examined as an example of varying interpretations of the causes of a particular sound change.

38. Paul L. Kirk, San Fernando Valley State College

THE DEVELOPMENT OF JALAPA MAZATEC VOICED ASPIRATES

In Jalapa de Diaz Mazatec, methathesis of the voiceless velar fricative with the preceding vowel has resulted in voiced aspirates (murmured vowels), each homorganic with the syllabic nucleus it precedes. These voiced aspirates, although they are not systematic phonemes since they are allophones of /h/, are of interest because of their apparent unique occurrence in a New World language. Their historical development from Proto-Mazatec phonology is clearly discernible. This paper traces that development. In addition, tape recordings of Mazatec speech are presented with the paper to illustrate the phonetic qualities of the voiced aspirates.

39. Sarah Grey Thomason, Yale University

ON THE NATURE OF ANALOGICAL CHANGE

Much of the recent disagreement in diachronic linguistics between generativists and more traditional historical linguists has centered around the concept of analogical change. The discussion is seriously hampered by a general lack of convincing statements about the nature of this historical process. One may find in the handbooks many good examples of different kinds of analogical change, but attempts by such scholars as Kuryłowicz and Winter to make valid generalizations about the factors contributing to the survival and spread of analogical innovations have failed. The reason for these failures is that the complexity of the factors involved has been consistently underestimated. It is seldom (or never) possible to point to one single linguistic circumstance as the sole cause of a particular analogical change, and very little progress can be made toward a general theory about analogical change until the entire relevant linguistic environment is considered in analyzing such changes. The purpose of this paper is to describe the main factors which must be taken into account: the overall patterns of change in various parts of the grammar at a given period in the language's history; the numbers and frequency of the forms involved; proximity of the forms in syntactic constructions; and the various types of similarity between the changing form or forms and the analogic model, whether a single form or a whole form-class -- phonological, morphological, syntactic, and semantic.

40. Jonathan Lowell Butler, University of California at Davis

A DISTINCTIVE FEATURE APPROACH TO DIACHRONIC ROMANCE CONSONANTISM

Operating with a distinctive feature matrix allows the author to relate problems in diachronic Romance consonantism traditionally treated in isolation (the 'gorgia toscana', word-initial alternation in all consonants in Central and Southern Italian dialects and in Sardinian, preservation of 'geminate' reflexes of Latin R- and less often L-, N-, F-, and S- in various Romance languages, spirantization of voiced or voiceless intervocalic stops) to the general problem of the Latin-Romance consonantal trajectory and to provide simple, elegant, and insightful solutions to these problems.

41. Yuen Ren Chao, University of California at Berkeley

IS SCIENTIFIC LANGUAGE LANGUAGE?

Of the many factors and dimensions of language, any can be, and usually has been, extended beyond what is usual in ordinary speech and still be regarded as language. As Carnap has observed, to any sentence claimed to be the longest possible sentence one can always add 'and the moon is round' and make it a longer one. More basically, writing, being roughly isomorphic with speech, is popularly regarded as language, though linguists often insist that it is not. The present paper considers those extended uses of language, including especially extended forms of writing which occur in science. Some important extensions far removed from ordinary language are: a-grammatical extensions of syntax, e.g., a $\rangle$ b $\rangle$ c (cf. 'A rose is a rose is a rose'); tables and multiple-dimensional diagrams and models; structural formulas in chemistry; coding, for purposes of technological handling, of letters or phonetic elements into forms which are hardly sayable or readable, such as the binary system of ones and zeros. To the question whether scientific language is language one could answer no for the extreme cases. But most writings in science are intermediate cases, so where do you draw the line? As to the extent to which writing is accepted as a form of language, it is worth noting that to this day there is no word in Chinese for language in this wide sense. The journal which deals with the Chinese language is called Chung^1.kuo yü^3-wen^2, literally 'Chinese speech and writing'.

42. Harry A. Whitaker, University of Rochester

UNSOLICITED NOMINALIZATIONS BY APHASICS: THE PLAUSIBILITY OF THE LEXICALIST MODEL

A simple language test was devised to evaluate an aphasic's sentence-constructing ability. A word is presented to the patient, both spoken and written to minimize any potential performance deficits in any modality; the patient is asked to use the word in a sentence or to explain its meaning. In the course of giving this test to two patients, it was observed that verbs tended to be nominalized in the response; this is in contrast to both other patients and all control subjects. This verbal behavior was neither encouraged nor discouraged by the experimenter. The data so obtained from these two patients is discussed from several points of view: first, some observations by Luria and Tsvetkova [1968] and Marshall [1968] which are relevant to this type of aphasia are considered; second, the putative performance strategies involved in the word-to-sentence test are postulated; and finally, the lexicalist and transformational descriptions of derived nominals are compared as plausible models.

43. Ronald E. Buckalew, Pennsylvania State University

ASPECTS OF GET

Like have and be, get may be regarded as basically a transformationally derived verb, one that has no lexical existence in the deep structure of English but is inserted by means of syntactic rules. Furthermore, get has many of the same structural relations as be and have and differs from them chiefly in aspect. Whereas they are basically stative, get is basically inchoative: John was/got sick; John had/got a cold.

Whatever its deep-structure status, get plays a major role in the aspect system of English. One of the relationships in that system which it reflects is that between inchoative and inceptive with stative and active respectively: He got to be captain and He got to thinking about it. Another is that between inchoative and causative; to cause an action or a state to exist implies that the action has begun or the state has been entered: Bill got John mad; John got mad.

In these aspectual functions, get alternates with such related verbs as go, come, become, and begin, as well as with the causatives have, make, and cause. By comparing get with these verbs in some of the many constructions in which they occur and by describing the selectional restrictions holding between the verbs and their subjects and complements, one can demonstrate the interrelatedness of aspects such as stative, inchoative, inceptive, durative, and causative in the verb not only with each other and with temporal expressions in the sentence but also with features such as animacy and agency in the noun. The passive use of get reveals the aspectual connection, but not identity, of the passive with the inchoative and causative constructions. The use of the inherent character of the features to account for constraints on certain constructions has a parallel in phonology and appears preferable to classifying verbs simply in terms of their potential syntactic frames.

The great popularity of get in colloquial usage derives from its broad grammatical foundation as well as from its ability to neutralize certain distinctions when they are irrelevant, such as that between come and go in certain contexts, and to avoid the aspectual ambiguity of such a construction as be + past participle.

44. Sanda Golopenţia-Eretescu, Rumanian Academy of Sciences

SEMANTIC FORMALISM

This paper is part of a larger essay to test the semantic relevancy of Noam Chomsky - Morris Halle's phonological formalism (The Sound Pattern of English, 1968). It examines:

- the implications of a dichotomy binary distinctive ± specified/ scalar descriptive n...m specified semantic features (especially in minimizing the inventory of semantic features, in structuring the lexicon and in refining the concept of semantic calibration),
- the possibility of operating with semantic matrices instead of semantic trees (and the necessity therefore of a previous linearization of the syntactic phrase-markers),
- the nature of the semantic matrices.

It is understood that we operate within an orthodoxly interpretive semantic component.

45. B. A. van Nooten, University of California at Berkeley

THE NUCLEAR-PERIPHERAL PRINCIPLE OF RULE ORDERING IN INDIAN GRAMMAR

The order of application of rules in Pāṇini's grammar is not always explicit from the design of the grammar. Some insight can be gained into the considerations that prompted post-Pāṇinean grammarians to introduce order, from an examination of the metalinguistic rules established by them. These rules are commonly stated as criteria by which to judge and solve rule conflicts. They are formulated as procedures one is to follow in the case of a conflict between sets of rules applicable at the same time in one context, or in various different contexts. One of these criteria which was formulated already by the earlist commentator, Kātyāyana, is the *antaran̄ga-bahiran̄ga paribhāṣā*. It recognizes that the physical succession of the constituents of a base form is responsible for the order in which grammatical rules apply to the successive contexts within that base form. Two considerations seem to be involved in the operation of this metarule, namely that of the *time* of the appearance of the constituent in the base form and that of the *distance* from its nucleus. This paper presents a few illustrations of this metarule and of the limits of its applicability.

46. Regna Darnell, University of Alberta

THE REVISION OF THE POWELL CLASSIFICATION: A CHAPTER IN THE HISTORY OF AMERICAN INDIAN LINGUISTICS

John Wesley Powell's classification of the linguistic stocks of North America into 55 families in 1891, based on the intensive fieldwork of the Bureau of American Ethnology staff between 1879 and 1891 provided a baseline for later work in American Indian linguistics and anthropology. After its publication, genetic classification became a less salient problem as Franz Boas and his students turned to structural description and psychological characterization of particular languages, especially in the 1911 Handbook of American Indian Languages. Indeed, the revision of the linguistic work of the Bureau was a major factor in the growth of Boasian anthropology.

Boas' conviction that areal and genetic causes of linguistic similarity could not be distinguished was taken up by A. L. Kroeber and Roland Dixon in their classification of the languages of California in 1903. Largely as a result of the influence of Boas' most brilliant linguistic student, Edward Sapir, Kroeber turned toward genetic explanations of the same similarities by 1919. Boas, whose linguistic interests were ethnographically motivated, turned away from genetic problems; Sapir, on the other hand, concerned himself with the training of linguists and the professionalization of linguistics as a science.

Sapir was at the center of a group of Boasian linguists whose fieldwork during the first two decades of the twentieth century provided data for revisions of the old Powell classification. Linguists and anthropologists have, for the most part, seen the history of linguistic classification in North America as a quantum jump from Powell's 55 stocks to Sapir's 6. Correspondence (Boas papers, Kroeber papers, B.A.E. archives) as well as published materials indicate greater complexity. Sapir recognized an intermediate classification of 23 units, accepted by most of his colleagues; his 6-unit classification first appeared in 1921, not 1929, and summarized the fieldwork of the previous two decades. Sapir's major innovations were in time depth and culture history, degree of relationship, and use of morphological data in conjunction with lexical.

47. Larry H. Reeker, Ohio State University

THE GENERALIZATION OF SYNTACTIC SPECIFICATION

The main purpose of the present paper is to relate recent developments in the generalization of automata, and of rewriting systems, to the specification of languages through transformational grammars. It is argued that a syntactic description is inherently two-dimensional (in a sense which is precisely defined), and that production rewriting systems, of the sort commonly used to specify "deep structure", do not capture this two-dimensionality property. The alternatives suggested have been developed by various researchers, and can be viewed in a common framework.

Results concerning the relationship of the syntactic formalizations of Peters-Ritchie and various two-dimensional calculi and generalized automata theories are mentioned. On the basis of these results, it is shown that there is no reason to sustain a radical split between transformational grammars and phrase structure grammars. It is pointed out that this distinction is artificial, having a historical origin, and that there has long been ample evidence that rules of the phrase structure type are interspersed with transformational rules.

Lastly, and briefly, it is suggested that the inherent two-dimensionality of grammars is related to the fact that a sentence is a network of concepts, that the semantic base is not a linear arrangement at all, but a representation similar to that advocated by Quillian. If this last conjecture has not been worked out in detail as of yet, it is at least an alternative that must be explored in seeking a comprehensive generative theory of sentence structure.

48. David L. Stampe, Ohio State University

INFINITE USE OF FINITE MEANS

Humboldt's famous query regarding the ultimate mystery of language has been answered in modern linguistics by reference to the recursive nature of grammar, which permits an infinite number of sentences to be formed from a finite lexicon because the sentences can be of unlimited length. But it is difficult to see how this solves Humboldt's puzzle if, as is readily admitted, most long sentences transcend the limitations of human perception. Furthermore, it may be argued that this answer misconstrues the question. It is not a question regarding the number of sentences but rather the number of uses of sentences. The question still remains even if we accept that the number of usable sentences in a language is finite. That is, we must then ask how a language makes infinite use of a finite number of sentences. The answer to this question obviously lies not in any characteristic of grammar, but in the fact that various sentences can be used for an infinite variety of utterances. This realization puts the study of grammar in a different perspective, and requires us to ask radically different questions regarding its function in language. It also requires us to ask to what extent the announced goals of linguistics can bring us nearer an answer to questions such as Humboldt's.

49. Charles W. Kisseberth, University of Illinois

ON THE ROLE OF DERIVATIONAL CONSTRAINTS IN PHONOLOGY

This paper will be concerned with the general phenomenon of the co-occurrence of functionally-related phonological rules in a grammar and the implications of this phenomenon for the theory of grammar. I will argue very briefly that it is a characteristic feature of human languages for a grammar to contain a number of rules which, in some deep sense, have the same function. Present phonological theory emphasizes structural similarity to the neglect of functional similarity. The bulk of the paper will then attempt to establish that phonological theory cannot continue to neglect functional relatedness without in the process failing to characterize the essential nature of phonological structure. The beginnings of a theory for dealing with one essential aspect of functional relatedness will be proposed, very tentatively, of course.

There seems to be two essential ways in which rules may be functionally related. (1) They "do" the same thing. For example, in Yawelmani there is a rule that inserts i in the context C___CC; but there are also two rules which delete consonants, and these rules operate on a sequence of three consonants to give an output containing just two consonants in a row. Vowel epenthesis and consonant deletion in this example are functionally the same in that they break up triliteral clusters (which are phonetically inadmissible in Yawelmani). (2) Rules may avoid creating strings with a structural property which other rules in the grammar eliminate. For example, in Yawelmani there is a rule that deletes a short vowel, but just in case deletion of that vowel will not yield as output a triliteral cluster. Vowel deletion avoids creating the kinds of strings that epenthesis and consonant deletion break up.

In Yawelmani, all rules avoid creating umpermitted consonant clusters. In other languages, however, some rules may avoid creating strings with a given property, whereas other rules do not. For example, in Tunica, adjacent stressed vowels are not permitted in the phonetic output. Certain rules in Tunica fail to apply if application would create adjacent stressed vowels, whereas other rules apply without regard to whether they create the phonetically inadmissible sequence. The operation of a later rule reduces the unpermitted sequence to a permissible one.

Restrictions on phonological rules of the sort considered above are natural restrictions, and I propose to make grammars containing such restrictions more highly valued than grammars containing totally arbitrary restrictions on rules, by establishing a notion of rules applying obligatorily relative to a given constraint on derivations. This theory of derivational constraints will be described briefly.

50. Paul Kiparsky, Massachusetts Institute of Technology

WHERE DO CONSPIRACIES COME FROM?

Phenomena of functional interaction of morpheme structure and phonological rules, recently pointed out by Kisseberth, arise historically in diverse ways. A phonological conspiracy can originate trivially through a single sound change which leaves reflexes both in the lexicon and the system of rules. Of greater interest are cases where phonotactic and paradigmatic conditions set the limits on phonological developments which a language undergoes. Examples of this type are analyzed in the paper. It is argued that the theory of language acquisition provides a rationale for their historical origin. The notion of "partial conspiracy" is discussed and related to the historical process of rule generalization. In connection with this problem, the general question of historical versus synchronic explanation in phonology is raised.

51. Alan Bell, Stanford University

ON SYLLABIC CONSONANTS

Some generalizations concerning syllabic consonants are presented, based on an investigation of the syllable structures of approximately 150 languages. The nature of the diachronic processes that create and destroy syllabic consonants is treated concomitantly with their synchronic characteristics, the two being closely related. Implications for phonological theory and description are drawn.

It is shown that syllabics are not limited to vocoids (segments that are +sonorant and -consonantal) and resonants (those that are +sonorant and +consonantal). Obstruents (-sonorant and +consonantal) also occur as syllable peaks -- usually fricatives, but occasionally stops as well. Of the four major segment classes, it appears that only laryngeals (most naturally separated from the glides and represented as -sonorant and -consonantal) cannot be syllabic.

General patterns of the voicing, length, place of articulation, stress, and tone of syllabic nasals, resonants, and fricatives are described.

The distribution of syllabic consonants is compared to that of vowels, on one hand, and to the corresponding nonsyllabic consonants, on the other.

The loss of a neighboring vowel is almost always a necessary condition for the rise of syllabic consonants. The additional circumstances that favor their creation and the possibility of origins not involving vowel loss are discussed.

52. Chin-Wu Kim, University of Illinois

LANGUAGE-SPECIFIC METARULES IN PHONOLOGY

In Korean, several phonological phenomena which are overtly different in forms of rules nevertheless share a property which is essentially a tendency toward a more closed (raised) articulation. For example, in certain environments,

(1) _w_ becomes _p_;

(2) _r_, _s_, and _c_ become _t_;

(3) Stops become imploded (unreleased);

(4) Vowels are raised (e.g. _e_ → _i_, _æ_ → _e_, _a_ → _ə_, _o_ → _u_, etc.);

(5) In consonant reduction of the type CC → C (e.g., _ks_ → _k_, _lp_ → _p_, _lm_ → _m_, _nc_ → _n_, etc.), what seems to be governing the deletion is the principle of closed articulation in that what is deleted is the more open C (in terms of the degree of aperture), i.e., the more closed C remains.

This suggests that the principle of closed articulation is a phonological metarule specific to Korean which projects itself onto several phonological rules in the language. Such projection naturally gives rise to a functional similarity, but a generality involved in rules of this sort is not expressible in a "collapsed" form (in a "schema") due to structural dissimilarity of rules.

Implications of this observation in phonological theory, which is currently devoid of an evaluation metric correctly reflecting generality of this kind, will be discussed.

HANDOUT

Language-specific Metarules in Phonology

1. Fricatives and affricates become stops.

$$\{s, ss, c, ch\} \rightarrow t \;/\; \_\_ \left\{\begin{matrix} C \\ \# \end{matrix}\right\}$$

C - consonant
# - word-boundary

nas	'sickle'	[nat]	cf.	nas-ɨr	[nasɨl]	-ɨr - object case
nac	'day'			nac-ɨr	[najɨl]	
nach	'face'			nach-ɨr	[nac^{h}ɨl]	

nas-kwa homi	[natkwa homi]	'sickle and hoe'
nac-kwa pam	[natkwa pam]	'day and night'
nach-kwa son	[natkwa son]	'face and hands'
kass-ta	[katta]	'went'

2. Glide w and liquid r become homorganic stops.

$$\begin{bmatrix} w \\ r \end{bmatrix} \rightarrow \begin{bmatrix} p \\ t \end{bmatrix} \;/\; \_\_ C$$

təw-ətta	'it was warm'	but	təp-ta	'it is warm'
təw-i	'warm weather'		təp-ko	'warm and'
təw-ɨm	'warmth'		təp-so	'it is warm'
kər-ətta	'walked'	but	kət-ta	'to walk'
kər-i	'walking distance'		kət-ko	'walk and'
kər-ɨm	'walking pace'		kət-so	'(he) walks'

ithɨr-nar → ithɨt-nar → [it^{h}ɨnnal] 'the next day'
hor-nipur → hot-nipur → [honnibul] 'single-sheet quilt'
sur-karak → [sutkarak] 'spoon'

3. Stops are unreleased word-finally and before C.

[nat°], [nat°kwa ...], [kat°ta]   [°] - unreleased

4. Vowel raising

$$\begin{bmatrix} e \\ \varepsilon \\ ə \\ a \\ o \end{bmatrix} \rightarrow \begin{bmatrix} i \\ e \\ ɨ \\ ə \\ u \end{bmatrix}$$

e.g.	pe-ta	→	[pida]	'to cut'
	əps-ta	→	[ɨp°ta]	'there is no'
	cəŋ	→	[cɨŋ]	'indeed'
	ha-ko	→	[həgu]	'do and'
	morɨ-a	→	[mullə]	'do not know'

5. Consonant reduction

ps → p, e.g. əps-ta → [əpta] 'there is no' cf. əps-i 'without'
ks → k, nəks-to → [nəkto] 'soul and' nəks-i 'soul is'
nc → n, anc-kəra → [ankəra] 'sit!' anc-ətta 'sat'
lk → k, ilk-ca → [ikca] 'let's read' ilk-ətta 'read'
lm → m, cəlm-ta → [cəmta] 'is young' cəlm-ɨn 'young'
lp → p, ccalp-ciman → [c'apciman] 'although short'
cf. ccalp-əto [c'albədo] 'even if short'

6. Three "modes" of articulation in French

(P. Delattre, Principes de Phonétique Française, 1951, pp.37-38)

a) "tendu", as opposed to English "relâché",
b) "antérieur", as opposed to English "postérieur",
c) "croissant", as opposed to English "décroissant".

7. a) $A \rightarrow B \ / \ X\underline{\quad}YZ$
b) $A \rightarrow B \ / \ X\underline{\quad}YW$
c) $A \rightarrow B \ / \ X\underline{\quad}Y\begin{Bmatrix}Z\\W\end{Bmatrix}$

8. a) $[\ \ ] \rightarrow \emptyset \ / \ \#\underline{C_1}\ C_2$
$\emptyset \rightarrow V \ / \ \#C_1\underline{\quad}C_2$ V - vowel
b) $[\ \ ] \rightarrow \emptyset \ / \ C_1\underline{C_2}C_3$
$\emptyset \rightarrow V \ / \ C_1C_2\underline{\quad}C_3$

9. a) $\acute{V}C\text{-}\acute{V}C\text{-}\acute{V}C\text{-}\acute{V}C\ldots \rightarrow \acute{V}C\text{-}VC\text{-}\acute{V}C\text{-}VC\ldots$
b) $\acute{V} \rightarrow V \ / \ \acute{V}C\underline{\quad}$ $*\acute{V}C\text{-}VC\text{-}VC\text{-}VC\ldots$
c) $VC\text{-}\acute{V}C\text{-}\underline{\acute{V}C}\text{-}\acute{V}C\text{-}VC\text{-}\acute{V}C\ldots \rightarrow \acute{V}C\text{-}VC\text{-}\underline{\acute{V}C}\text{-}VC\text{-}\acute{V}C\text{-}VC\ldots$
d) ⓘ $\acute{V} \rightarrow V \ /$ ⓜ $\underline{\quad}\ \underline{C\acute{V}}$
^

ⓘ - applies iteratively
ⓜ - mirror image environment

10. ⓓ A_i > ⓓ A_o

ⓓ - degree of aperture
i - input
o - output

11.

degree of aperture	segments	e.g.
0	unreleased stops	t°
1	released stops	t
2	affricates	c
3	fricatives	s
4	liquids	r
5	glides	y
6	high vowels	i
7	mid vowels	e
8	low vowels	a

12. a) $\begin{bmatrix} \text{-grave} \\ \text{C} \end{bmatrix} \rightarrow \emptyset$ / C__C

b) $\text{C} \rightarrow \emptyset$ / __CC

c) $\text{C}_i \rightarrow \emptyset$ / $\textcircled{m}\ \{\text{C}_j\_\_\}\ \text{C}$, where $\textcircled{d} \cdot \text{C}_i > \textcircled{d}\ \text{C}_j$

53. Henry Lee Smith, Jr., State University of New York at Buffalo

THE MORPHOPHONIC STATUS OF /h/ AND /+/ IN ENGLISH

The concept of the morphophone clarifies the structural provenience of the phonemes /h/ and /+/, probably the two most controversial phonemes in the Trager-Smith inventory for English. Initial phoneme /h/ is the expression of initial morphophone h., but postvocalic /h/ phonemes are never the expression of the morphophone h., but are (1) organic, as in /óh/ of o.--/kóht/ caught (Central Atlantic Seaboard); /éh/ of eh.--/kéhn/ can (n.) (CAS); (2) essential, as in /ȯh/ of o.--/lóh/ law (CAS); (3) conditioned (the result of smoothing) /óh/ of ow.--/wóhr/ wore (CAS); excrescent (conditioned and binding on all speakers of a dialect, but not on all speakers of a language)--/óh/ of o. /wóhr/, /wɔ́hr/ war (CAS); (5) epenthetic (in free variation with its absence in certain dialects)--/ɔ́(h)/ of o. /á(h)/ of a.--/sɔ́hriy/ ≊ /sɔ́riy/ ≃ /sáhriy/ ≊ /sáriy/ sorry (Buffalo, N.Y.); (6) expressed (result of consonantal in substitution with Q̀.)--/káht/ of k.ä́.t. (k.â.r.t. with Q̀. ← r.--London); (7) contrastive --/míhyɨn/ million ≠ /míyɨn/ Meighan (where l. of m.í.l.y.n. million has been absolutely lost, but /h/ is inserted between /i/ and /y/ where speakers of these dialects wish to contrast million with Meighan).

Contrary to my former statments, I now suggest that there is no +. morphophone, but rather |.. In macrofix superfixes used in tactical phrases and in certain lexical phrases, the /+/ phoneme is the expression of |., e.g. gốod+bóy, Jốhn+rán. In all other cases, that is, in both lexical and tactical microfix superfixes and in lexical macrofix superfixes, /+/ is not the expression of the juncture morphophone but is (1) predictable (with major words)--níght+ràte, Lòng+Ísland; (2) contrastive--ăn̆+aím vs. ă+náme (when ordinarily /ənéym/ would occur for both); (3) obligatory--pàrliămĕn+tárian, cir+cúmference, phŏ+tógraphy; (4) excrescent--Plá+tò, aú+tò; (5) epenthetic--/bǽt+rĭy/ ≊ /bǽtrĭy/ ≃ /bǽtɨ̆rĭy/ battery, of b.ǽ.t.r.y.; (6) expressed--possibly in /ə̆+tǽk/ attack, /ə̆+láw/ allow, etc., of æ̆.t.=∘t.ǽ.k., æ̆.l.=l.ǽw., where the t., l. of the pre-subbase morphemes are in substitution with Q̀. expressed by /+/. Cf. French /+/ of Q̀. ← h. in le+Havre, les+haricots verts.

54. Burckhard Mohr, University of California at Berkeley

INTRINSIC VARIATIONS OF ACOUSTICAL PARAMETERS OF SPEECH SOUNDS

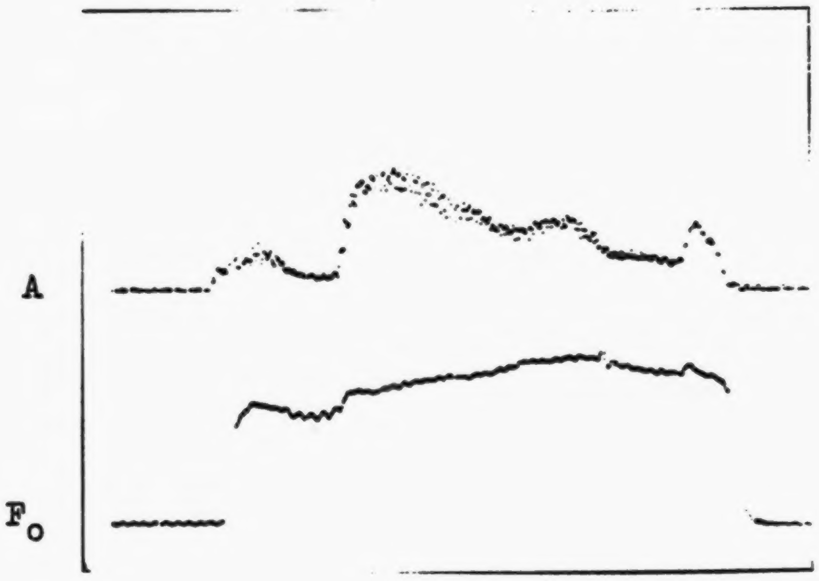
The present paper presents some new evidence for the well-known relationship between pitch (fundamental frequency) and duration on the one hand, and other properties of certain speech sounds, such as tongue height and voicing, on the other.

Assumptions about (1) the laryngeal control of speech, specifically of the width of the glottis, about (2) the timing of laryngeal activity with respect to activity of supraglottal articulators, and about (3) the resulting relationship between subglottal and supraglottal air pressure, prove to be sufficient to explain observed variations. This is considered as evidence for the universal rather than language-specific nature of such variations.

These intrinsic properties of speech sounds are then discussed as possible explanations for certain sound changes.

HANDOUT

Intrinsic Variations of Acoustical Parameters of Speech Sounds



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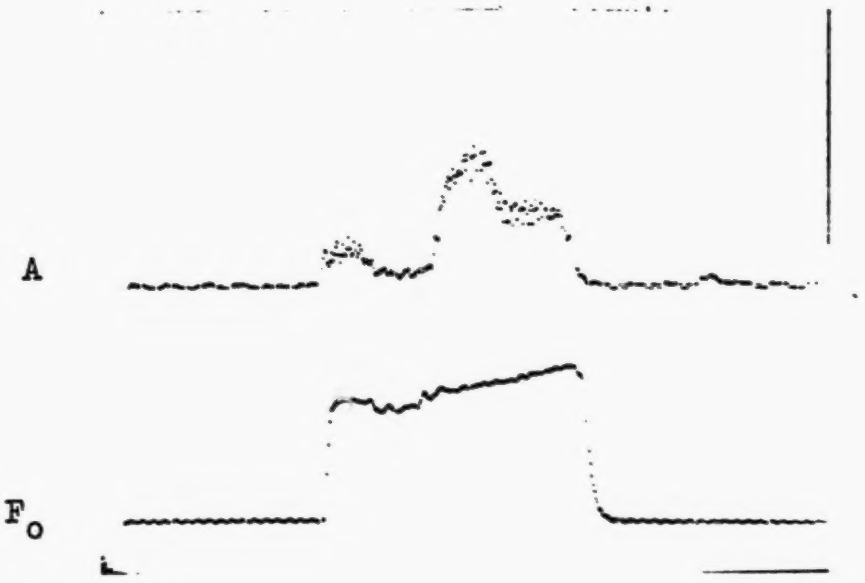

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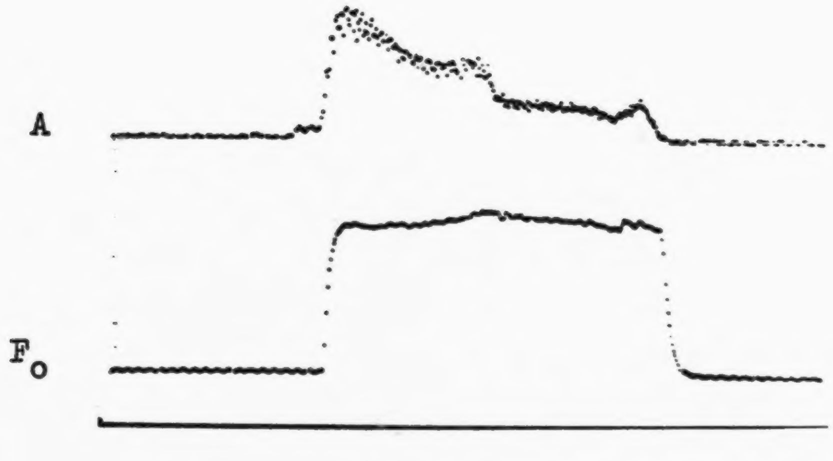
Amplitude (A) and fundamental frequency (F_0) contours of CVC syllables (speaker WW)



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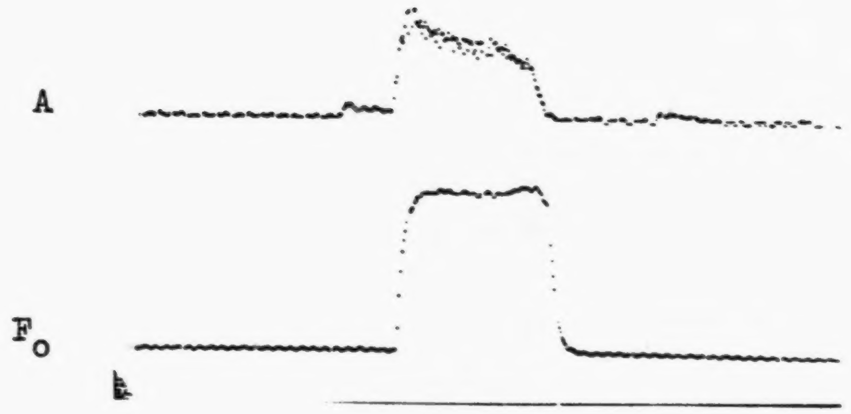
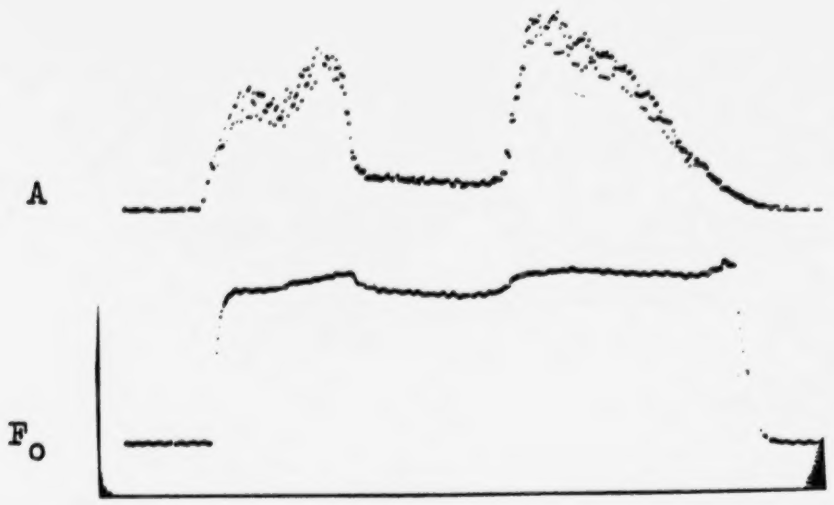


[pat]

Amplitude (A) and fundamental frequency (F_o) contours of CVC syllables (speaker WW)



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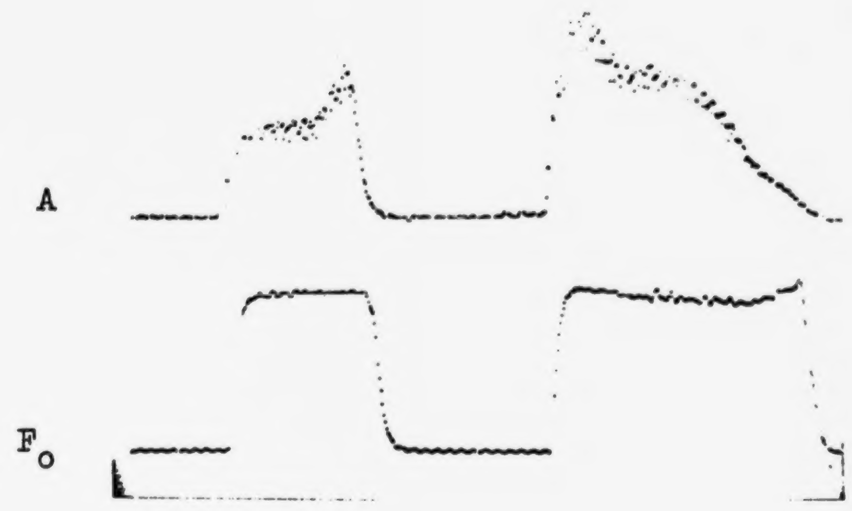
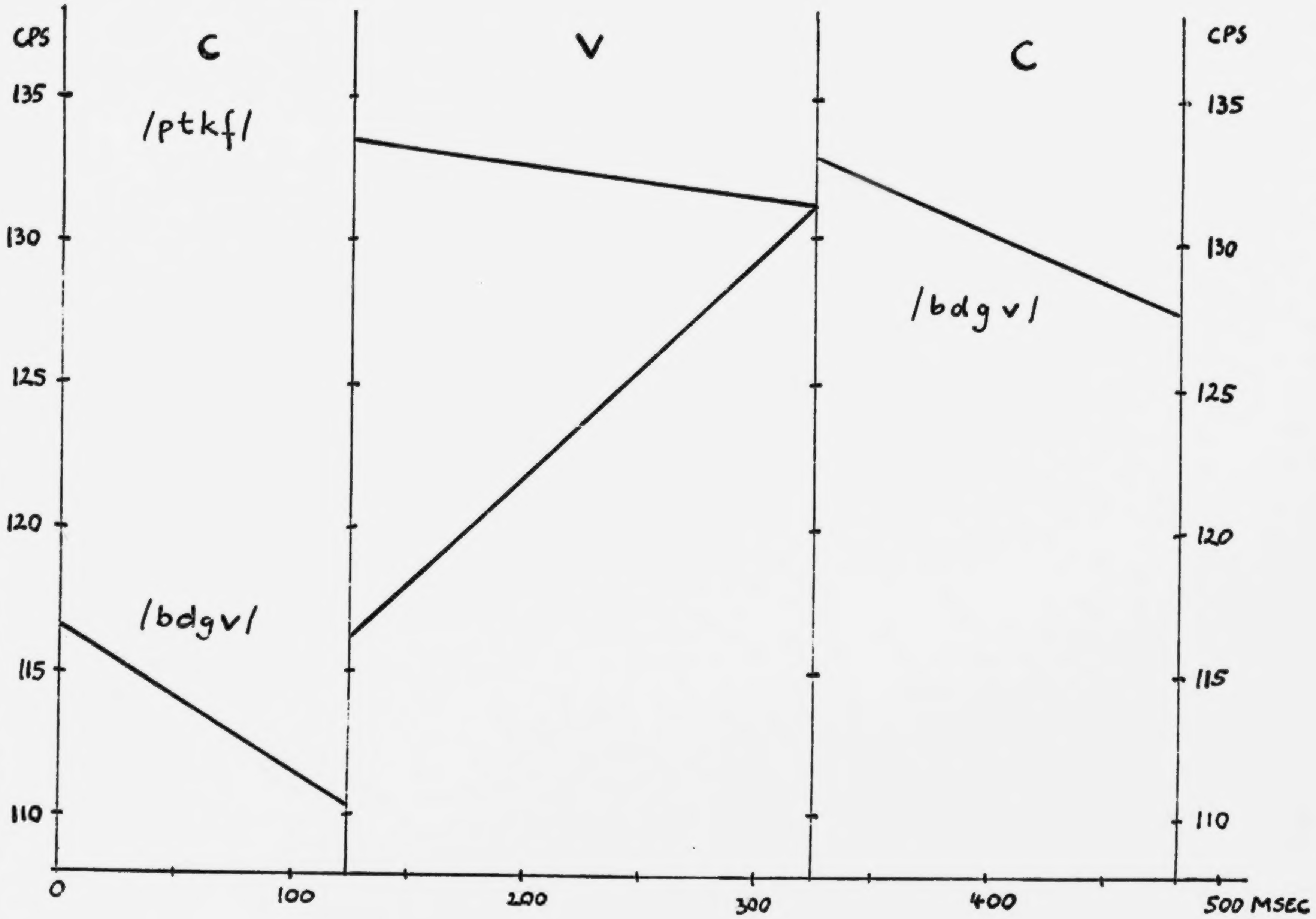
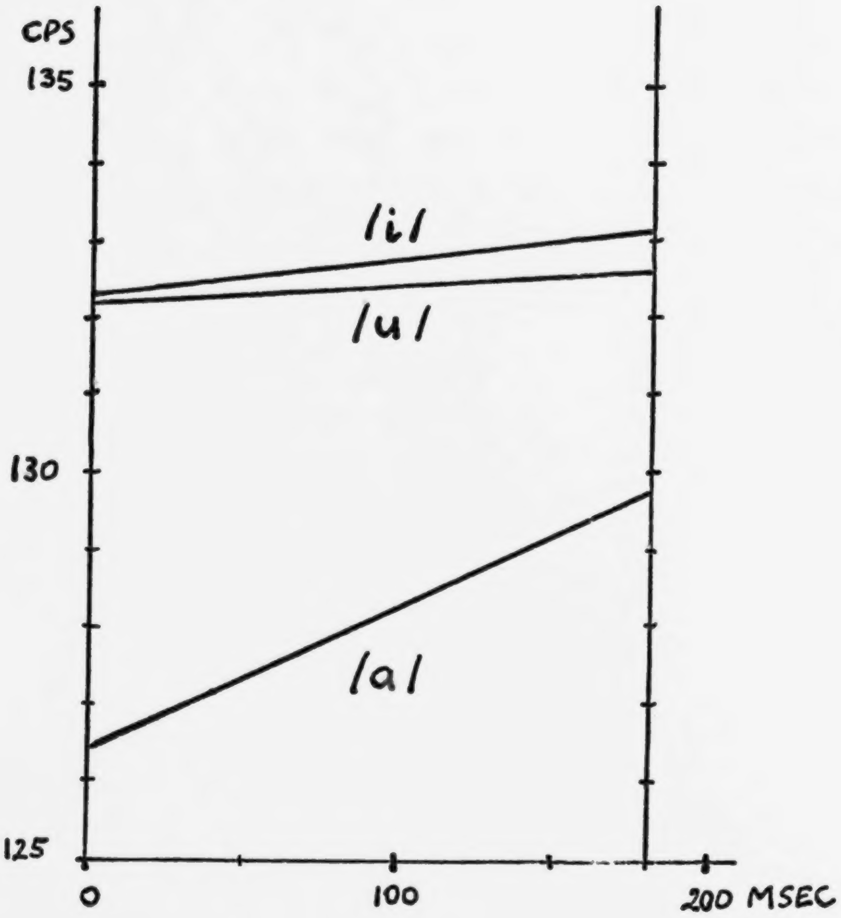


[apa]

Amplitude (A) and fundamental frequency (F_o) contours of VCV sequences (speaker WW)



Average fundamental frequency contours of C V C syllables



Average fundamental frequency contours of three vowels in initial position (V̲CV)

55. James Foley, Simon Fraser University

PHONOLOGICAL DISTINCTIVE FEATURES

As linguists our concern is not with the physical structure of sounds, but with abstract relationships between entities which manifest themselves as sounds. Our phonological parameters should not be based on phonetic data, but rather on phonological relationships exhibited by phonological rules. I take as my primary data not physical sounds, but phonological laws, and construct a set of distinctive features based on linguistic relationships. This set of phonological distinctive features yields insights into the nature of language and allows generalizations which a set of phonetic distinctive features cannot.

HANDOUT

Phonological Distinctive Features

A. Data

First Germanic consonant shift

voiceless stop > continuant (Latin tres, English three)
voiced stop > voiceless stop (Latin dentis, English tooth)
voiced aspirate > voiced non-aspirate (Skt. bharami, Eng. bear)

Transformational phonetic description

[-voice] → [+continuant]
[+voice, -aspiration] → [-voice]
[+voice, +aspiration] → [-aspiration]

fails to reveal any relationship among the subparts of the shift.

Second Germanic consonant shift

voiceless continuant > voiced stop (three, drei)
voiceless stop > affricate (tooth, Zahn)
voiced stop > voiceless stop (do, tun)

Transformational phonetic description

[-voice, +continuant] → [+voice, -continuant]
[-voice] → [+strident]
[+voice, -continuant] → [-voice]

fails to reveal any relationship among the subparts of the shift, fails to reveal any relationship between the first shift and the second shift.

First Spanish consonant shift

long stop > short stop (bucca > boca)
voiceless consonant > voiced consonant (vita > vida)
voiced stop > voiced continuant (habere > haβer)

Transformational phonetic description

[-voice, -continuant, +long] → [-long]
[-voice] → [+voice]
[+voice, -continuant] → [+continuant]

fails to reveal any relationship among the subparts of the shift, fails to reveal any relationship between the Germanic shift and the Spanish shift.

B. Establishment of phonological features

velars separate from dentals and labials

North German sagen > saγen, but baden, beben > idem

Sanskrit ghansas > hansas, but didhami, bharami > idem

velars and dentals separate from labials

Danish kage > kaγe, bide > biðe, but købe > idem

Spanish lego > leo, credo > creo, but haber > idem

phonological relationship:

```
                 g  d  b
                 ------------>
                 1  2  3
          relative phonological strength α
```

voiced stops are stronger than voiced continuants (sagen > saγen, etc.)

```
phonological    2↑ g  d  b
strength β      1│ γ  ð  β
                 └------------->
                   1  2  3
                   phonological strength α
```

a new basis for comparative linguistics:

```
          β strength 2  →  β strength 1
          α strength n
                              where 1 ≤ n ≤ m
                              for North German m = 1
                              for Danish       m = 2
                              for Spanish      m = 3
```

a prediction: there is no language where d > ð but g > idem

the formulation of the rule requires that if d > ð then g > γ

voiceless stops are stronger than voiced stops

Germanic voiceless stops > Danish voiced stops

English cake, Danish kage; bite, bide; cheap, købe

Latin voiceless stops > Spanish voiced stops

vita > vida; sapere > saber; aqua > agua

```
                3↑ k  t  p
phonological    2│ g  d  b
strength β      1│ γ  ð  β
                 └------------->
                   1  2  3
                   phonological strength α
```

long, aspirated, and affricated voiceless stops stronger than simple voiceless stops

Latin bucca > Spanish boca

English $t > t^h$ (top)

Danish $t > t^s$ (Tivoli)

$$\begin{array}{lc|ccc} & 4 & k^+ & t^+ & p^+ \\ \text{phonological} & 3 & k & t & p \\ \text{strength } \beta & 2 & g & d & b \\ & 1 & \gamma & \eth & \beta \\ \hline & & 1 & 2 & 3 \end{array}$$

relative phonological strength α

C. Systematic phonological interpretation of data in part A

First Germanic consonant shift

$t > \theta$ interpreted as $t \to t^+ \to t^h \to \theta$

$d > t$ interpreted as $d \to t$

$d^h > d$ interpreted as $d^h \to \eth \to d$

Isolating

A $t^+ \to t^h$ (phonetic manifestation)

B $t^h \to \theta$, $d^h \to \eth$ (increase of bond strength)

we have left

$t \to t^+$ or β strength 3 → β strength 4

$d \to t$ or β strength 2 → β strength 3

$\eth \to d$ or β strength 1 → β strength 2

The characteristic of the first Germanic consonant shift is

$$\beta \text{ strength } n \to \beta \text{ strength } n+1$$

Second Germanic consonant shift

$t > t^s$ interpreted as $t \to t^+ \to t^s$

$d > t$ interpreted as $d \to t$

$\theta > d$ interpreted as $\theta \to \eth \to d$

Isolating

A $t^+ \to t^s$ (phonetic manifestation)

C $\theta \to \eth$ (High German version of Verner's Law, a generalization of $\theta \to \eth \,/\, \overset{\circ}{V}$ ___)

we have left

$t \to t^+$ or β strength 3 → β strength 4

$d \to t$ or β strength 2 → β strength 3

$\eth \to d$ or β strength 1 → β strength 2

The characteristic of the second Germanic consonant shift is

β strength n → β strength n+1

The second Germanic consonant shift is essentially a repetition of the first

Spanish consonant shift

t^+ → t or β strength 4 → β strength 3
t → d or β strength 3 → β strength 2
d → ð or β strength 2 → β strength 1

The characteristic of the Spanish consonant shift is

β strength n → β strength n-1

The Spanish consonant shift is contrapositive to the Germanic consonant shift. The Spanish shift is a weakening of consonants, the Germanic shift a strengthening of consonants. This relationship, inexpressible in transformational phonology, indicates the need for a new system of distinctive features based on phonological relationships.

56. Oliver M. Willard, University of Oregon

FEATURES: UNARY OR BINARY?

I hope to show (i) that Lamb's unary features allow a more compact lexicon, but (ii) that Jakobson's binary features allow simpler rules for the realization of the lexicon in actual sentences. I will therefore propose a system based on the principle of markedness for converting unary lexical items, to make them available to undergo the operation of binary phonological rules.

I will discuss some of the stratificational grammarians' own examples to show that both plus and minus values for features are necessary in the phonological component of a grammar (though not in the lexicon), since some rules operate only when a feature is present but others operate only when a feature is absent. Unless, for instance, we are willing to consider "Unaccentedness" to be a positive feature and "Accent" to be the mere negative absence of this feature, some stratificational examples cannot be adequately described with unary rules.

Neutralization is essentially negative, since it cancels out one or more of the differences between units which are in contrast elsewhere in the system. Consequently I hope to show (i) that predictability and not distinctiveness is the most practicable criterion for isolating the features, or "phonons", of a language, and (ii) that much unnecessary controversy has arisen from attempts to capture the ignis fatuus of "distinctiveness".

57. Claire Asselin, University of Connecticut

GRAFTING

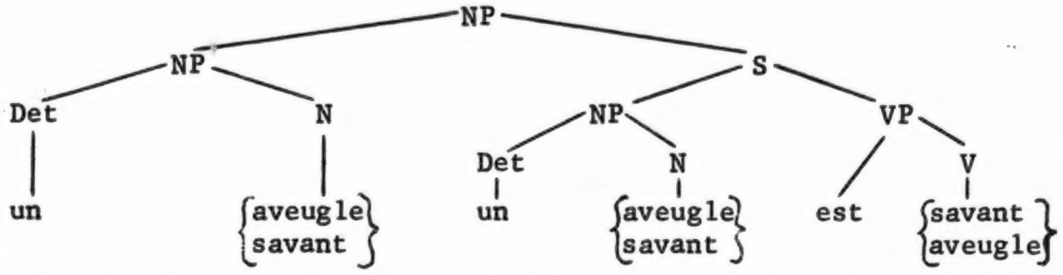
The phenomenon of linking in French as well as that of pause is not solely a phonological one. The rules of linking and pause are in fact syntactically constrained and their application depends on the grammatical category of the constituents involved. The following examples may serve as an illustration.

(1) savant‿aveugle 'learned blind man'
(2) aveugle‿savant 'learned blind man'
(3) savant / aveugle 'blind scholar'
(4) aveugle / savant 'blind scholar'

In (1) linking is obligatory and in (2) pause is prohibited (indicated by the inverted arc) whereas in (3) linking is prohibited and in (4) pause is obligatory (indicated by the slant line). Before the application of the linking and pause rules, however, (1) and (3) are phonetically identical and so are (2) and (4). Thus, if the linking and pause rules were uniquely phonological, there would be no way of determining whether the rules apply or not.

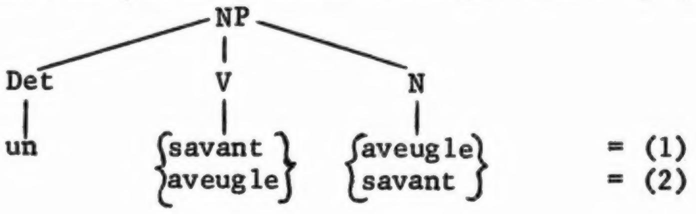
Assuming that phrases such as (1-4) are derived from relative clause constructions, we derive (1) and (2) from the deep structure (5).

(5)



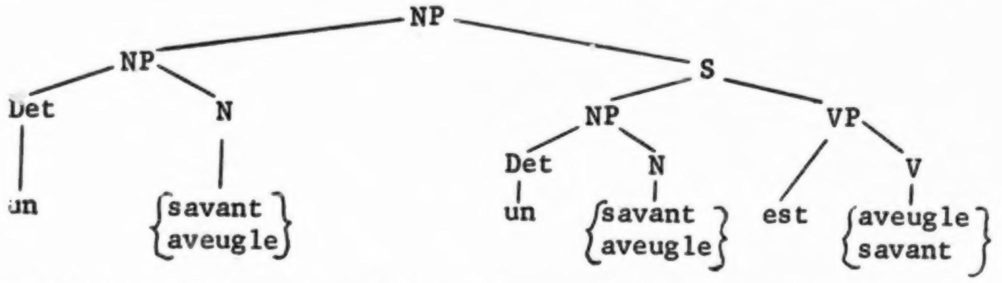
The application to the above phrase-marker of the rules of Relative clause formation, Relative clause reduction, and Adjective shift and of Ross's Pruning principle, yields a structure represented by (6).

(6)



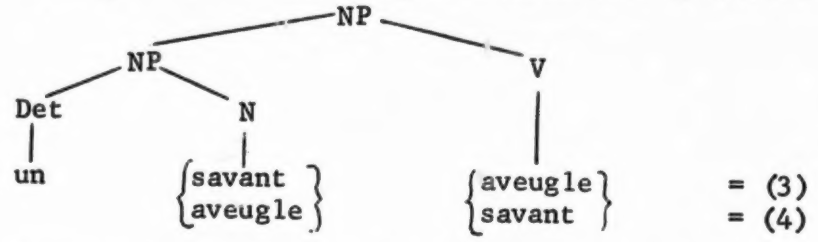
The derivation of (3) and (4) is as follows: to the deep structure (7)

(7)



the same rules of Relative clause formation and Relative clause reduction apply. After Pruning we get the structure represented by phrase-marker (8).

(8)



From the phonetic point of view the constituents V + N in (6) seem to behave as one entity, i.e., (1) requires linking and the meaning of (2) prohibits pause; on the other hand, the constituents N + V in (3) and (4) seem to behave as distinct entities, i.e., in (3) linking may not occur and in (4) pause is necessary in order to disambiguate (4) from (2). What this suggests is that the speaker feels the presence of a boundary between the noun and the adjective in constructions like that of (8), a boundary which is not present between the adjective and the noun in constructions like that of (6).

This paper will suggest as a tentative explanation of the phenomena of linking and pause that pruning does not erase completely all traces of severed branches; it will suggest that the boundary which separated the pruned node from the preceding noun be adjoined to this noun as a reminder so to speak, that at some point in the derivational history of the structure there was an embedded sentence following the noun. To remain withing the horticultural terminology of Ross I will call this the GRAFTING principle.

58. John Robert Ross, Massachusetts Institute of Technology

A STRESS CONSPIRACY IN ENGLISH

I will attempt to show that a number of processes in English phonology "conspire" to yield phonetic forms which have the property that primary stresses in words can be further to the left in nouns than in adjectives or in verbs, and further to the left in adjectives than in verbs. Some of the evidence which I will present is the following:

A. Primary stress is first assigned finally (cf. Tennes*seé*, debon*áir*, guaran*tée* (this final stress is normally subsequently retracted - cf. *mána*tèe, *máni*fèst, *gálli*vànt - under complicated conditions)). Whether or not a form can be non-finally stressed depends on what consonants it ends in. Non-finally stressed verbs can only end in sonorants (cf. jettison, monitor, bamboozle); non-finally stressed adjectives in sonorants (genuine, personal) or in the consonants *s* or *t*, or in the cluster *nt* (obvious, adequate, indigent); and non-finally stressed nouns in sonorants or in any dental cluster (arsenal, integer, modicum, cinnamon; Titicut, pyramid, abacus, Elizabeth, elephant, Everest).

B. There is a rule which deletes word-final lax *e*, after this vowel has caused velars to palatalize (cf. alle*g*e-alle*g*ation, redu*c*e-redu*c*tion). For verbs, however, a more general form of this rule applies, deleting not only mid but also low front vowels. Thus *credit*, *establish*, etc., can be shown to end in a low front vowel in underlying representation (among other things, this vowel explains the laxing of the penultimate vowel of such verbs (cf. crēdo, crēdence; stāble)). Thus verbs *appear* to be stressed only finally or penultimately (re*gret*/in*her*it), in contrast to nouns, where stress can appear on any of the last three syllables (Ber*lin*, ho*riz*on, *cinn*amon). The fact that it is for *verbs* that antepenultimate stress is not possible (if the verb ends in a non-sonorant) is the same fact as the fact that non-finally stressed verbs end in a smaller class of consonants than is possible for the other two major word-classes (Cf. A).

C. While there are noun-verb pairs in which stress is retracted in both members (comment, ambush), or is not retracted in either (arrest, lament); or is retracted only in the noun (tor*ment*$_V$, *tór*mènt$_N$), there are no pairs in which the stress is retracted only in the verb (po*lice*$_{N,\ V}$, and not *$\underline{\text{pól}}$ìce$_N$).

D. There is a rule *de*stressing -*ate* and certain other affixes from which stress has been retracted. This rule, however, does not apply to verbs. Thus such pairs *délegàte*$_V$ - *déleg$\overset{\circ}{\text{à}}$te*$_N$ are produced - pairs containing nouns followed by two unstressed syllables, a situation which cannot arise for verbs.

The significance of such "conspiracies" - groups of rules which have the same *function*, while being formally totally distinct, will be briefly discussed.

59. D. L. Olmsted, University of California at Davis

THE EFFECT OF POSITION IN THE UTTERANCE ON ACQUISITION OF PHONES BY CHILDREN

This topic is explored with reference to data collected from the spontaneous utterances of 100 children between the ages of 15 and 54 months. A distinct advance over previous investigations is afforded by the fact that the sample contains, for most of the children, multiple attempts at most of the phones, not simply one chance to pronounce each phone in some test situation. Age-norms are suggested for the several phones of English and the notion of an Index of Acquisition (IA) is developed for the different age-groups of children in connection with the different phones. The situation respecting the effects of different utterance-positions turns out to be more complicated than has been suggested by previous investigators. The results from these data are contrasted with the suggestions of previous workers, e.g. Wellman et al., Templin, and Jakobson.

60. Thelma E. Weeks, Stanford University

SPEECH REGISTERS IN YOUNG CHILDREN

This study examines the question of the use of speech registers by children. Subjects for the study were three children: one girl and two boys aged one year six months, three years, and four years ten months, respectively. Data was gathered over a two-year period from the boys and for six months from the girl. For the purposes of this study, register is defined as a style of speaking (e.g., formal, imitative or clarified) or voice intensity (e.g., whisper-shout) and pitch (e.g., normal-high), when used to convey additional information or emotion beyond that conveyed by the words alone. Interest centers on the age at which children learn to use various speech registers and in what social contexts. In general, the results show that children begin to make use of speech registers at the same time that they begin to acquire language, although full mastery of speech registers is acquired more slowly than general linguistic competence. Also, the progression of the acquisition of registers varies a great deal more than does the acquisition of grammatical forms. Determining factors for the variation are suggested by this study.

61. Edward Walker, Massachusetts Institute of Technology

GRAMMATICAL RELATIONS AND SENTENCE MEMORY

A complete linguistic theory must provide an account of the relation between grammatical theories of competence and psychological theories of performance. The research reported below is used to claim that the speed with which words are recognized as having occurred in a sentence is correctly described by the grammatical relations among those words in the sentence in question.

Using the latency for recognizing that two words occurred in a sentence, it is demonstrated that the grammatical relations among words strongly influence their retrieval from immediate memory. 1) Grammatically related words are recognized faster than unrelated words, contradicting predictions based on serial position alone. 2) Furthermore, related words are recognized faster when they are presented for recognition in the same order as that described by the structure of the sentence. Preference of order for the head noun and embedded verb of relative clauses is determined by the grammatical relation of the words in question. 3) In cases where surface order and underlying order conflict, the underlying order determines the preferred recognition order. However, when surface and underlying orders differ, the preferred recognition order may be determined by the semantic predictability of the relation in the sentence. For passive sentences with semantic clues to relational interpretation, the surface order of the words is preferred for recognition. For passive sentences with semantically reversible subjects and objects, the underlying order is preferred. This last result suggests, of course, that retrieval latencies are not determined by sentence structure alone, but may reflect other aspects of competence as well.

62. Samuel Fillenbaum and Amnon Rapoport, University of North Carolina

AN EXPERIMENTAL STUDY OF SEMANTIC STRUCTURE: ENGLISH KIN TERMS

Given the general problem of discovering the underlying structural properties of a semantic domain when response data are in the form of a symmetric proximity matrix, the particular concern of this study is to describe the structure of a sub-set of the domain of English kin terms, and to test the psychological reality or validity of two componential analyses that have been offered for this domain. Since we wished to assess the usefulness of a number of techniques for gathering and analyzing proximity data we employed two different graph construction methods -- the method of labelled trees and that of complete undirected graphs -- to obtain the data, and graph-theoretic, clustering, and non-metric multidimensional scaling methods conjointly in the analysis of the data. The results were clear-cut: consistent with what is to be expected given a paradigmatic model, a spatial or dimensional representation appeared to be the more appropriate one. The hierarchic clustering analysis not only helped in evaluating the adequacy of the two componential models by determining whether items supposed to be close did in fact cluster together, but given that the contours enclosing clustered items are compact and simple when embedded in the dimensional solution, as was found, permitted a check on the appropriateness of that solution. The results decisively favor the componential model developed by Romney and D'Andrade over that offered by Wallace and Atkins, and in addition have implications regarding the subjective weighting or importance of the postulated components.

63 Ranko Bugarski, University of Belgrade

ON SYMMETRY IN PREPOSITIONAL SYSTEMS

In any language, linguistic correlates of spatial relations, and of relations derived from these by a process of abstraction, are likely to exhibit a relatively high degree of symmetrical organization. In languages in which such relations are covered by systems of spatial prepositions, it is the subsystems of the orientation type that will tend to show this feature most characteristically. However, closer examination shows that superficial parallels or similarities of kind may often conceal important differences of degree. The purpose of this paper, based on a detailed analysis of a subsystem of present-day English prepositions, is to identify one such case in this language and to point to some of the apparent implications with regard to the usefulness of the concepts of symmetry and asymmetry as applied to natural languages in general. The oppositions above/below and over/under participate in a system of spatial prepositions not all members of which are paired off in this fashion, and their respective terms may be assumed to be symmetrically related. While this is true in a general sense, a careful comparative examination of the various meanings of the individual terms, for which examples are provided, reveals that above and below are related to each other considerably more systematically, and hence more symmetrically in terms of strict antonymy, than are over and under. In the former case we find essentially one-to-one mirror-image semantic contrasts; in the latter, a gradient of contrastiveness extending between strong direct contrast and the absence of any kind of immediate relationship between the two terms. Symmetry in natural language - as opposed to various formalized 'languages' - is thus seen to be a matter of degree, and excessive reliance on this concept may lead to serious distortion of descriptive data.

64. Laurence R. Horn, University of Michigan

PRESUPPOSITION AND THE ENGLISH QUANTIFIER SYSTEM

Quantifiers in natural language have long been a source of interest both for linguists and logicians. What has been lacking, however, is an approach both linguistically sound and logically sophisticated, to the actual syntax and semantics of the quantificational system used in normal English (as opposed to the quasi-English generally analyzed by most philosophers). Such an approach would be based upon an investigation of the presuppositional structure of quantifiers, as determined by the standard test: constancy of presuppositions under question and negation.

The existential "some" in logic is defined as "at least one" or "one or more". This is far from sufficient for natural English: "some", as a quantifier operating on plural count nouns, does indeed assert "at least one" (although it is only used when it applies to "at least two"), but in addition it presupposes "not all". "Some dogs have fleas" presupposes that (is used appropriately when) (i) some dogs don't have fleas (i.e., not all dogs have fleas) and (ii) there are at least three dogs in the universe. The structure of the semantics of this "some" can be given formally by

some $(\{x_i \mid i \geq 3\}, Fx)$

P: (i) $\exists x Fx \supset \exists y \exists z (y \neq z \;\&\; Fy \;\&\; Fz)$
(ii) $\exists x \sim Fx$

A: $\exists x Fx$

In fact, all non-universal quantifiers (e.g. "most", "many") presuppose against the universal. To allow for the possibility of universal application English uses disjunctions of the form "some if not all", "few if any", "seldom if ever". Further analysis of quantificational usage reveals that "some" does not presuppose against "many" but, on the other hand, "many" presupposes "some". The fact that "some" and "all" -- but not "some" and "many" -- define mutually exclusive conditions is an insight attributable to and formalizable by presuppositional analysis.

This approach will be utilized in investigating other parts of the English quantifier system. Special attention will be given to the interaction of negation with quantification and to the nature of generics.

65. Steven B. Smith, University of California at Riverside

RELATIONS OF INCLUSION

In positive sentences a cardinal number n can often be interpreted either in the sense of at least n or exactly n.

(1) John has 200 dollars.

(2) John has 175 dollars.

In one sense (1) implies (2); therefore the negation of (2) is incompatible with (1). The "normal" negation (i.e., without emphatic stress) of quantitative terms (e.g., many, all, pretty, warm, love) is of the "at least" sense; that is, not at least = less than.

To account for such relations of inclusion, we can formulate rules of the sort hot implies at least warm, cold implies at least cool, old implies at least middle aged, brilliant implies at least intelligent, intelligent implies at least smart, smart implies not dumb.

Relations of inclusion play a role in English with respect to a number of constructions, including constructions with only, but, and much less. For example, in expressions such as X isn't even Y, much less Z, Z must imply at least Y, or the expression is anomalous.

(3) Rita Sue doesn't even like Ernie, much less love him.

(4) *Rita Sue doesn't even love Ernie, much less like him.

(5) *Rita Sue doesn't even like Ernie, much less dislike him.

(6) *Rita Sue doesn't even dislike Ernie, much less like him.

(7) Rita Sue doesn't even dislike Ernie, much less hate him.

Since all of the above verbs imply that Rita Sue knows Ernie, it is possible to substitute any one of them in the blank in (8).

(8) Rita Sue doesn't even know Ernie, much less ______ him.

This paper describes the role of relations of inclusion with respect to various constructions in English.

HANDOUT

Relations of Inclusion

Examples followed by a raised asterisk are from Papers from the Fifth Regional Meeting Chicago Linguistic Society, "A Presuppositional Analysis of Only and Even" by Laurence R. Horn.

1. John has 200 dollars.
2. John has 175 dollars.
3. John doesn't have 175 dollars.
4. John has at least 175 dollars.
5. John has exactly 175 dollars.
6. Does John have 175 dollars?
7. Yes, in fact he has 200 dollars.
8. No, he has 200 dollars.
9. *Yes, in fact he has 150 dollars.
10. Ernie bet Billie Sue $10 that 15 people will come to his party.
11. There were 11 people at Ernie's party.
12. There are three dead horses in the bathtub.
13. There were 15,000 people at the Forum.
14. There were 15,123 people at the Forum.
15. John is as old as Harry.
16. John isn't as old as Harry.
17. Is John as old as Harry?
18. Yes, in fact he's older.
19. No, in fact he's older.
20. John has as much money as Fred.
21. John has as much money as Fred; in fact he has more.
22. *John has as much money as Fred; in fact he has less.
23. Is the water warm?
24. Yes, in fact it's hot.
25. No, it's hot.
26. Is the water cool?
27. Yes, in fact it's cold.
28. No, it's cold.

29. Is Rita Sue smart?

30. Yes, in fact she's brilliant.

31. No, she's brilliant.

32. No, in fact she's stupid.

33. *Yes, (in fact) she's stupid.

34. Is Ernie dumb?

35. Yes, in fact he's an ignoramus.

36. No, he's an ignoramus.

37. No, in fact he's brilliant.

38. *Yes, (in fact) he's brilliant.

39. Does Ernie like his chopper?

40. Yes, in fact he loves it.

41. No, he loves it.

42. No, he hates it.

43. *Yes, (in fact) he hates it.

44.

Beautiful	Pretty
Pretty	Attractive
Attractive	Presentable
Ugly	Unattractive
Unattractive	Not attractive
Hot	Warm
Cold	Cool
Warm	Not cool
Old	Middle aged
Middle aged	Not young
Brilliant	Intelligent
Intelligent	Smart
Smart	Not dumb
Stupid	Dumb
Hate	Dislike
Love	Like
Dislike	Not like

45. John only *likes* rice (... he doesn't love it).*

46. John only *dislikes* rice (... he doesn't hate it).*

47. ?John only *eats* rice (...?)*

48. *John only *loves* rice, he doesn't *like* it.*

49. Only $(F, Fx, E_i E)$

Presupposition: (i) Fx

(ii) $(\exists G)\ (G \neq F \ \&\ E_i\ (G,F))$

Assertion: $-(\exists G)\ (G \neq F \ \&\ E_i\ (G,F)\ \&\ Gx)$ *

50. a. E_{love} (love, like)
    b. E_{loathe} (hate, dislike) *
51. $(\exists G)\ (G \rightarrow F\ \&\ -(F \rightarrow G))$
52. $(\forall G)\ (((G \rightarrow F)\ \&\ -(F \rightarrow G)) \rightarrow -G)$
53. a. Brigitte Bardot is only pretty.
    b. (...she isn't beautiful).
    c. (...she isn't intelligent).*
54. John only eats rice, he doesn't sell it (as well).
55. F:
56. $(\exists G)\ -(G \rightarrow F)\ \&\ -(F \rightarrow G)$
57. $(\forall G)\ ((F \in D) \rightarrow -(G \in U))\ \&\ ((F \in U) \rightarrow -(G \in D))$
58. ?*Rita Sue is only stupid, she isn't pretty.
59. Rita Sue is only stupid, she isn't ugly.
60. The water is only hot, it isn't dirty.
61. The water is only cold, it isn't dirty.
62. The water is only hot, it isn't clean.
63. The water is only cold, it isn't clean.
64. John likes rice, but he doesn't love it.
65. John dislikes rice, but he doesn't hate it.
66. John eats rice, but he doesn't sell it.
67. *John loves rice, but he doesn't like it.
68. *John hates rice, but he doesn't dislike it.
69. Brigitte Bardot is pretty, but she isn't beautiful.
70. Brigitte Bardot is pretty, but she isn't intelligent.
71. *Rita Sue is stupid, but she isn't pretty.
72. Rita Sue is stupid, but she isn't ugly.
73. ?The water is fresh, but it isn't dirty.
74. The water is fresh, but it isn't clean.
75. The water is greasy, but it isn't dirty.
76. Rita Sue doesn't even like Ernie, much less love him.
77. *Rita Sue doesn't even love Ernie, much less like him.
78. *Rita Sue doesn't even like Ernie, much less dislike him.
79. *Rita Sue doesn't even dislike Ernie, much less like him.
80. Rita Sue doesn't even dislike Ernie, much less hate him.
81. *Rita Sue doesn't even hate Ernie, much less like him.
82. Rita Sue doesn't even know Ernie, much less ________ him.

83. He could not read the text, much less translate it.[1]

84. He's unwilling to rent the house, much less buy it.

85. ?He could not translate the text, much less read it.

86. ?He's unwilling to buy the house, much less rent it.

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[1] Nos. 83 and 84 from The Structure of Language, "Negation in English", by Edward S. Klima

66. Jean Casagrande, University of Florida

AGREEMENT IN FRENCH

Within the scope of simple sentences agreement can be limited to two rules but may not be further reduced. The first rule accounts for the agreement in gender and number of adjectives and past participles with the subject, and of AVOIR past participles with the preceding object. The task of the second rule is to specify the agreement of the verbal element in person and number with the subject.

Arguments are given for rule ordering, for the auxiliary formation rule, for the deep identity of adjectives, verbs, adverbs, and prepositions, against the placement of agreement rules in the cycle, and against a unique agreement rule.

67. Marlys McClaran, University of California at Los Angeles

THE VERBAL CATEGORIES IN YUCATEC MAYA

Descriptive studies to date of Yucatec Maya have labelled the various morphemes of the verbal system and have noted cooccurrence restrictions, but an internally coherent system with explanatory value for the syntactic phenomena has been lacking. The analysis offered here provides a solution for some traditional problems in Mayan linguistics including (a) the distribution and function of the two sets of personal pronouns, (b) the so-called "passive" forms and (c) the modals and conjunct forms. It provides a basis for a description of nominalized constructions.

The linguistic analysis is integrated into the results of a study in descriptive semantics in which informants produced distributionally defined lexical classes and two-item rules indicating which classes could combine to form acceptable utterances. These lexical classes are not synonym sets, nor morphological form classes nor free association categories, but rather covert classes whose class meanings contribute to the meaning of sentences beyond the meaning contributed by the deep structure constituents, the syntactic function of these constituents and the referential features of lexical items. The kind of knowledge involved is that which allows us in English to know that in the sentence *John kicked the dog*, *John* has a relation to *kick* which is different from that of *John* to *undergo* in *John underwent psychoanalysis*.

This kind of information about the covert classes of Yucatec is offered along with the observed facts of surface structure as the basis for the proposed analysis of the verbal syntactic phenomena.

68. Alan M. Stevens, Queens College of the City University of New York

CASE GRAMMAR IN PHILIPPINE LANGUAGES

It is well known that in Philippine languages one NP is focused on, i.e. is made subject or topic and is marked by a special particle. The case relationship of this NP to the verb is marked by verbal affixes, and other NP's in the sentence are marked by other particles.

In Universals in Linguistic Theory brief references are made to universal case grammar as applied to Philippine languages. I would like to explore these further and examine some of the implications of applying these suggestions to the notion of focus.

Fillmore suggests that focusing is equivalent to topicalization of one of the case prepositions (in his sense): "its original case preposition is replaced by (the focusing particle) and an affix is inserted into the V which indicates the case category of the chosen NP."

But what is the original case preposition? It is not always possible to go from the focused NP and its presumed case preposition to the correct V affix by relying on what would be expected from a corresponding English sentence. For example, the goal of the verbs 'wash' and 'sweep' is focused on by inserting a locative affix on the verb. On the other hand, the goal of 'give' and 'throw away' is focused on with an instrumental affix on the verb. Some verbs have several of these possibilities. Is this merely a matter of subcategorization of verbs according to the set of case relations they take or are there deep (i.e. universal) semantic and syntactic justifications for these selections?

The case relationships of non-causitive, causitive, and non-focus sentences will be examined.

69. Zdeněk F. Oliverius, Monash University

COMPONENTIAL ANALYSIS OF RUSSIAN MORPHEMES

In most works dealing with componential analysis attention is limited to a relatively small universe (kinship terminology, morphological paradigms, etc.).

In languages with words having a more or less agglutinative and therefore clearly transparent structure (e.g. Slavonic languages) an attempt at componential analysis outside the domain of kin terms and grammatical paradigms may prove successful and useful.

This paper wishes to draw attention to some problems of semantic components of Russian word-formational affixes and to elucidate the feasibility of componential analysis of Russian morphemes.

The inventory of the domain of Russian affixal morphemes, which is comparatively small, has been many times and contradictorily described. One of the main reasons for the non-uniqueness of linguistic descriptions of Russian morphemes is the inconsistent treatment of relevant (distinctive) and irrelevant (non-distinctive) semantic components.

The validity of some types of semantic tests applicable to Russian morphemes is discussed and arguments for a general difference between relevant and irrelevant semantic components are offered.

70. Charles N. Li, University of California at Berkeley

THE SEMANTICS OF PASSIVE(BEI) AND EXECUTIVE(BA) CONSTRUCTIONS IN MANDARIN CHINESE

The surface structure of the passive and executive constructions is most commonly of the form:

$$NP_1 + \begin{Bmatrix} \text{BEI} \\ \text{BA} \end{Bmatrix} + NP_2 + VP$$

where NP_1 is the patient, NP_2 the agent, in the passive(BEI) form, and NP_1 is the agent, NP_2 the patient, in the executive(BA) form. It has been postulated that the deep structures of these constructions consist of an active sentence plus a BEI or BA formative respectively (Wang, Hashimoto, 1964 and 1966). Hashimoto recently suggested that these constructions may be treated as embedding structures with BEI or BA as the matrix verb. The co-occurrence restrictions among the Agent-NP, Patient-NP, and the VP in the BEI and BA sentences, however, remain an unsolved problem. These restrictions are not the same as those found among the identical NPs and VP in an active counterpart of the form: Agent-NP + VP + Patient-NP. In this paper, we examine the BEI and BA constructions with simple verbs, compound verbs, and resultative verbs having either a transitive or intransitive matrix verb. The analysis shows that there are differences between the BEI, BA, and active sentences at the deep structure level beyond the presence or absence of BEI and BA. These differences can not be explained by syntactic conditions alone. They are essentially caused by a number of semantic factors which also determine the co-occurrence relations among the elements of the sentences in question. Consequently, new deep structures of BEI and BA constructions are proposed, and several issues concerning the nature of 'deep structure' in the theory of syntax are raised and discussed.

71. William E. Welmers, University of California at Los Angeles

THE DERIVATION OF IGBO VERB BASES

Inflectional affixes in the Igbo verbal system include a few prefixes, suffixes, and morphemes of tone replacement. These occur with a verb base, which may consist of one to three, or perhaps occasionally four or five, syllables. The first syllable is itself a verb root, which with very few exceptions occurs independently as a monosyllabic verb base. The second syllable may be another such verb root. The second syllable in other cases and all remaining syllables, with one exception noted later, are bound morphemes; although a few two-syllable sequences are at present unanalyzable, it seems reasonable to assume that each syllable is a separate morpheme.

It is tempting to hypothesize that the bound morphemes occurring in bi- and polysyllabic bases are themselves verb roots which merely do not happen to occur as independent monosyllabic bases. However, the restriction of obvious monosyllabic roots to first and second position in a polysyllabic base suggests that the bound morphemes constitute a separate morpheme class, which we call "base formatives". About thirty such base formatives have been identified. The semantics of these morphemes strongly support this analysis. One independent root occurs also as a base formative, with a significant element of semantic symmetry.

The parallel with Bantu "verbal extensions" is interesting. However, Igbo also has two morphemes which function differently from base formatives, and even more like Bantu extensions.

72. Eric P. Hamp, University of Chicago

A BORROWED MORPHOPHONEMIC PARTICULARITY

The isolated Albanian dialect of Mandrica is located in a single village of Bulgaria near the Greco-Turkish border. The dialect has undergone strong contact effects from the neighboring languages. One phonetic result is that dental spirants have merged with sibilants, so that '20' accidentally resembles '10, -ty', which is not true of other Albanian dialects.

The decades in spoken Bulgarian undergo an abnormal syncope of the vowel of '-ty' not found generally in other word classes. Mandrica Albanian, though inheriting the Albanian vigesimal system, shows the same abnormal syncope. I term this a "particularity" and not an "irregularity" since it is seen to be a regular rule of the language once the correct syntactic context is identified and incorporated. It is this rule that Mandrica has borrowed.

HANDOUT

A Borrowed Morphophonemic Particularity

	1	2	3	4	5	6	7	8	9
Bulg.	edín	dva	tri	čétiri	pet	šes(t)	sédem	ósem	dévet
Alb.	ni	ǵu	tri	katrë	pesë	ǵaštë	štatë	tetë	nëntë

10	déset				zjetë
11	idinájsъ(t)				nimbëzjetë
12	dvanájsъ(t)				ǵumbëzjetë, tri...
14	čet(i)rinájsъ(t)				katërmet, pesë..., etc.
20	dvájsъ(t)				nizét
21	dvájs(ъ)t	i ednó,	dvájsiɪdnó		nistení
22		i dvé ,	dvájzdvé		nistegú
23		i trí ,	dvájstrí		
24			dvájsčétiri		
26			dvájšés		
27			dvájsédъm		
28	dvájstósъm	,	dvájsiósъm		
29			dvájzdévъt		
30	tríjsъ(t)				trizjét
33			tríjstrí	31	tristení
40	č(e)tírisъ(t)				ǵuzét
49	čtíristidévet	,	čtírizdévet	41	ǵustení
50	pedesé(t)				pezjét
60	šejsé(t)				ǵažjét
70	sedъmdesé(t)				štatëzjét
80	osъmdesé(t)				tetëzjét
90	devedesé(t)				nëntëzjét
51-99	pedesé-i-Num., etc.			81	tetëstení

73. Anthony J. Naro, University of Chicago

DIRECTIONALITY AND ASSIMILATION IN PORTUGUESE

It can be shown that the diachronic dental palatalization law of Portuguese (see Naro 1969b) is non-directional:

$$\begin{bmatrix}\text{+cons}\\ \text{+cor}\\ \text{+ant}\\ \text{-dist}\end{bmatrix} > [\text{+high}] \quad / \quad \begin{bmatrix}\text{-voc}\\ \text{-back}\\ \text{+high}\end{bmatrix}$$

Typical examples are *filium* > *filho* and *apiculam* > *abelha*. Intuitively these changes involve assimilation or spreading of the feature [+high] in both directions -- backward from yod and forward from *k*. Another change of the same type involves the lowering of mid vowels on both sides of a low vowel, followed by spread of [+round] (exs: *ao* > *aɔ* > *ɔɔ*, *oa* > *ɔa* > *ɔɔ* as in *solam* > *só*, *maor* > *mór*; see Naro 1969a). However, there are clearly cases in which features spread directionally (ex: Portuguese velar palatalization, in which [-back] spreads backward only). Given the intuitive connection between lack of directionality and spread of features it is postulated that all *diachronic* non-directional sound changes are assimilative.

Several apparent counter-examples are discussed and are shown to be consistent with the hypothesis upon closer examination. An interesting case is Oliveira's rule:

$$\begin{bmatrix}\text{-stress}\\ \text{-low}\\ v_1\end{bmatrix} \qquad [\text{+high}] \qquad v_2$$

This rule, which raises unstressed mid vowels in hiatus, has been a part of Portuguese phonology for several centuries. As a synchronic rule it is non-directional but obviously non-assimilative. Diachronically, however, the first examples found are with v_2 = *a*. Traditionally a change like *ae* > *ai* would be at worst a dissimilation but an alternative treatment is presented. Other examples are discussed.

74. Sydney M. Lamb, Yale University

THE STRATIFICATIONAL TREATMENT OF HAVE..-EN AND OTHER DISCONTINUOUS MORPHEMIC REALIZATIONS

As is well known, the perfect tense in English is expressed by have together with the appropriate past participle suffix on the following verb; the latter may be given the single abstract symbol -en. Unlike the usual complex lexeme, the two components of the realization, have and -en, are not contiguous but are separated by a verb stem, e.g. have taken. The same situation is found for the progressive tense, realized as be..-ing, and the passive lexeme, realized as be..-en, as in have been being taken, realizing ^{L}/perfect progressive passive take/. In treating this phenomenon within a rewriting frame of reference, the usual approach is to first order the units so that have and -en are contiguous and then to rearrange them by means of a transformational rule which permutes the suffix and the following verb stem.

The present paper presents the latest stratificational treatment of this phenomenon, which accounts for the facts by means of a simple relational network description without any permutations. The description is then expanded to show the treatment of word boundaries as well as the phenomenon of 'subject inversion' as a means of expressing the yes-or-no question, e.g. have the books been taken?

This new stratificational treatment, which is more economical than earlier ones, makes use of a new type of node, called the one-way 'and', and a new type of line, on which impulses can move in only one direction. This new equipment appears at first glance to constitute an added complication in the notational system of stratificational grammar, but besides the above-mentioned phenomena, it provides a simpler means than heretofore available of accounting for the conditioning of alternate realizations, e.g. the various realizations of the past participle suffix. Moreover, the entire network system of the now familiar version of stratificational grammar can be reduced to a system which has only three types of nodes plus a blocking element, and in this more refined system the 'new' one-way nodes can be incorporated without additional equipment.

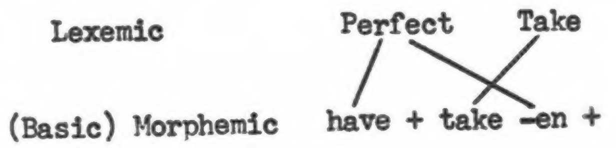
HANDOUT

The Stratificational Treatment of have..-en and Other Discontinuous Morphemic Realizations

The Stratificational Treatment of have..-en
and Other Discontinuous Morphemic Realizations

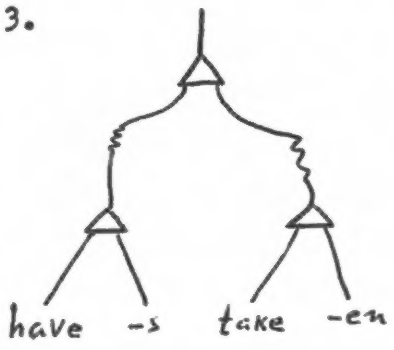
Handout, Part I (Part II will be distributed at the meeting)

1. Consider have taken:

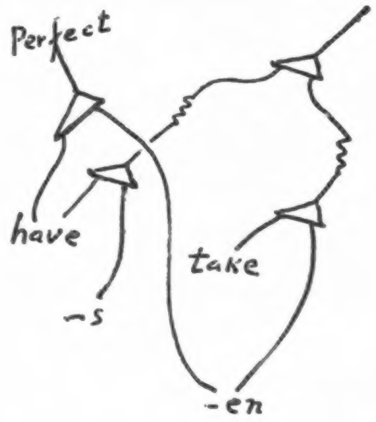

Lexemic
Perfect
Take
(Basic) Morphemic
have + take -en +

2. has taken: (Basic) Morphemic have -s + take -en +

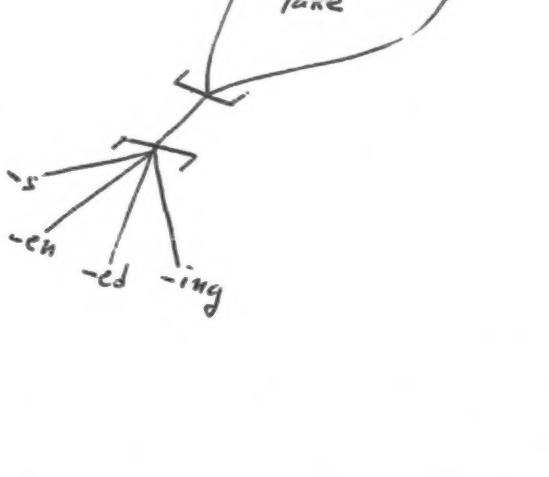
3.


have
-s
take
-en

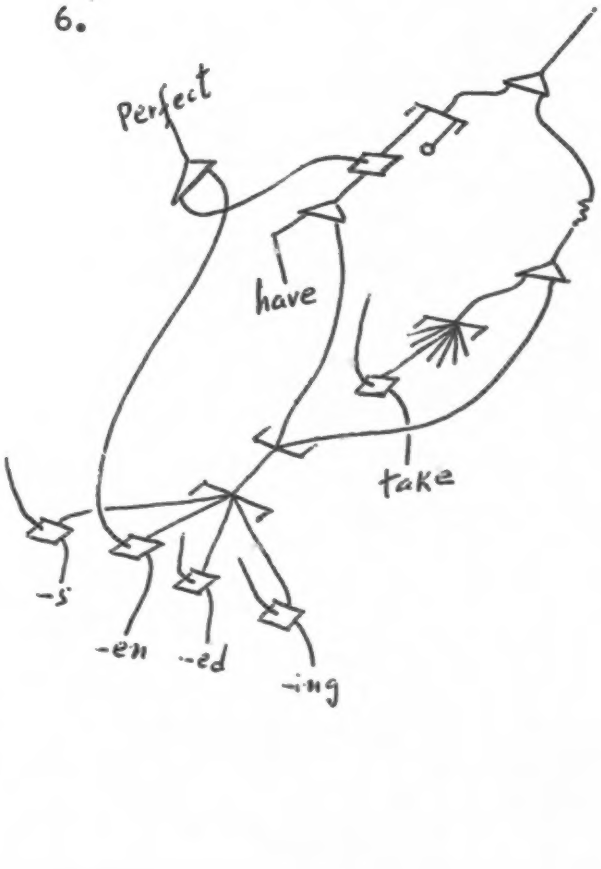
4.


Perfect
have
take
-s
-en

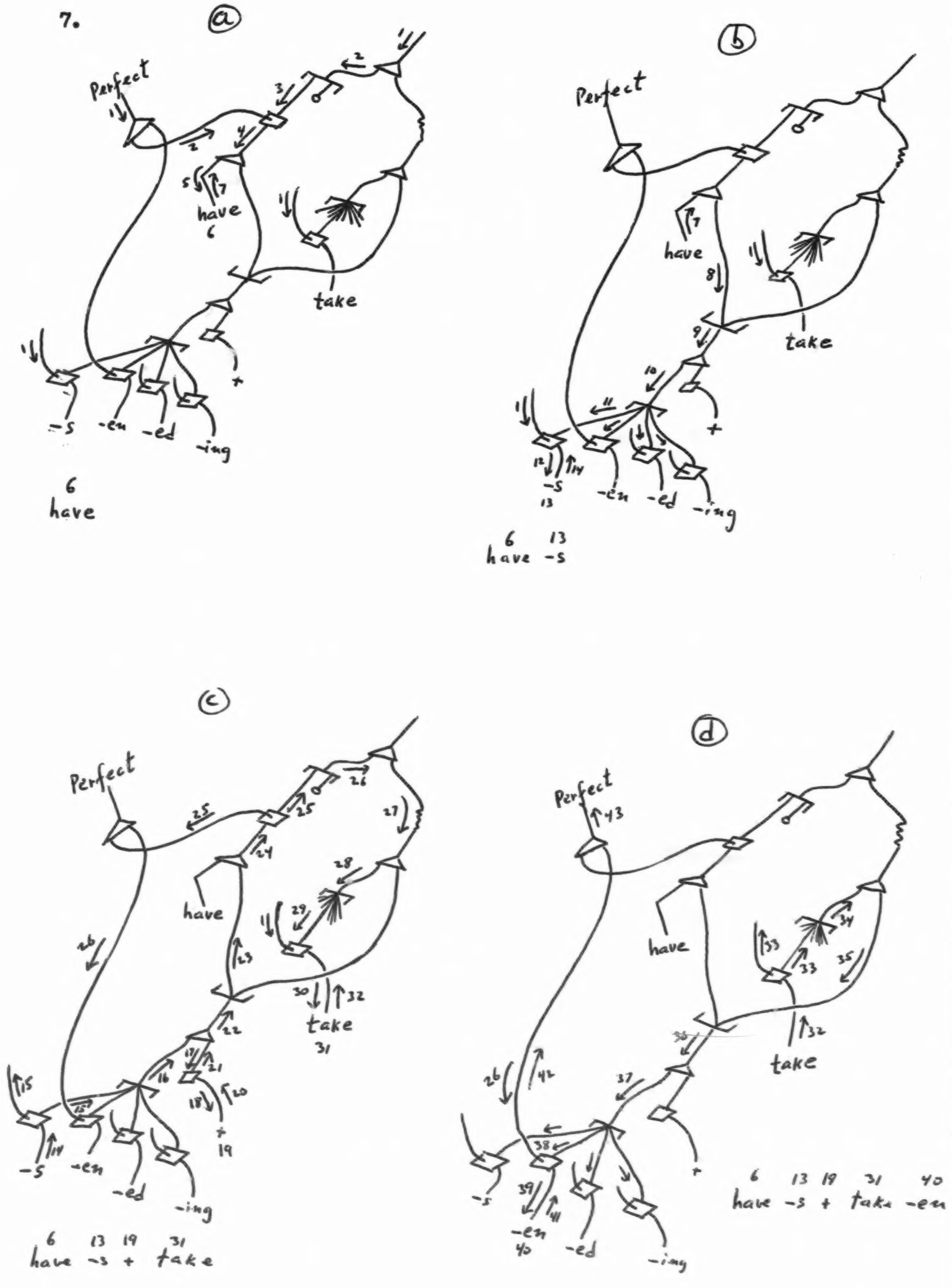
5.


have
take
-s
-en
-ed
-ing

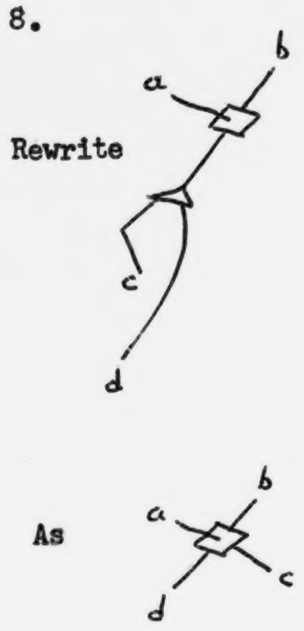
6.


Perfect
have
take
-s
-en
-ed
-ing

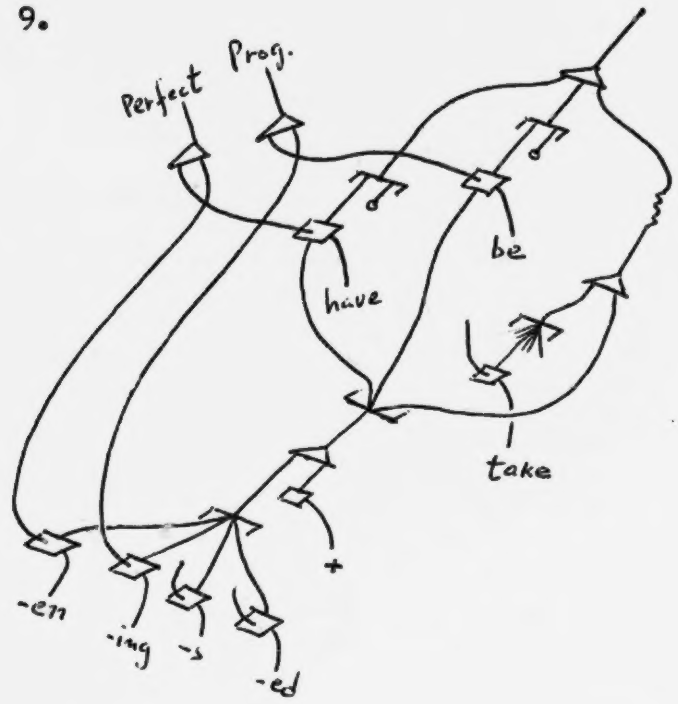
7.


(a)
Perfect
have
6
take
-s
-en
-ed
-ing
+
6
have
(b)
Perfect
have
take
-s
13
-en
-ed
-ing
+
6 13
have -s
(c)
Perfect
have
take
31
-s
-en
-ed
-ing
+
19
6 13 19 31
have -s + take
(d)
Perfect
have
take
-s
-en
40
-ed
-ing
+
6 13 19 31 40
have -s + take -en

8.

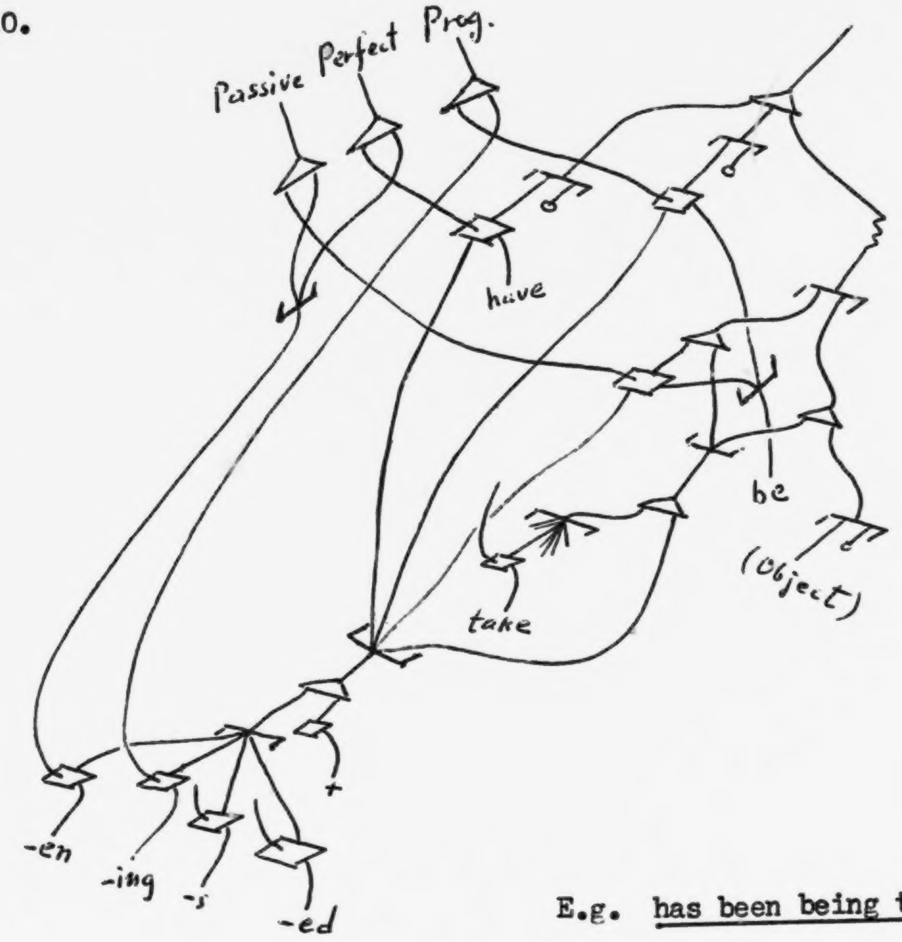

Rewrite
a
b
c
d
As
a
b
c
d

9.


Perfect
Prog.
have
be
take
+
-en
-ing
-s
-ed

E.g. *has been taking*

10.


Passive
Perfect
Prog.
have
be
(Object)
take
+
-en
-ing
-s
-ed

E.g. *has been being taken*

75. Paul L. Garvin, State University of New York at Buffalo

MODERATION IN LINGUISTIC THEORY

American linguistics during the past few decades has been characterized by the transition from the dominance of one theoretical extreme to that of another. This change in basic attitudes has by some authors been called a "change in scientific paradigm", using a concept suggested by Thomas A. Kuhn in "The Structure of Scientific Revolutions" (U. of Chi. Press, 1962). This application of Kuhn's notion will be critically evaluated. Some striking, though rarely mentioned, parallels between the two extreme views will be pointed out. In conclusion, some of the considerations pertinent to the development of a moderate theoretical position in linguistics will be presented.

76. Stanley Peters, University of Texas at Austin

WHY THERE ARE MANY "UNIVERSAL" BASES

Recent advances in mathematical linguistics (John P. Kimball (1967) "Predicates Definable over Transformational Derivations by Intersection with Regular Languages," Information and Control, 11, 177-195; P. Stanley Peters and R. W. Ritchie (1970) "On the Generative Power of Transformational Grammars," to appear in Information Sciences) have made it possible to study certain hypotheses of empirical linguistics in terms of this field. Some linguists have attempted to present evidence in favor of (Bach, Lakoff, McCawley, Ross) or against (Chomsky) the hypothesis that all natural languages have the same underlying structure. Their arguments, which have been far from universally convincing, are framed within various versions of the theory of transformational grammar, which attempts to provide a fully explicit basis for choosing the descriptively adequate grammar for a natural language from among the class of all possible grammars.

It is now possible to demonstrate that published versions of transformational theory fail to provide a means to empirically test the universal base hypothesis. This has been shown by proving that a highly trivial base component suffices for the description of arbitrary recursively specifiable sets of data, including many which are not possible natural languages, when supplemented by an appropriately chosen transformational component. Furthermore, there are an infinite number of bases which are "universal" in this sense. One reason why this is so is the extremely abstract nature of the relationship between a transformational grammar's rules and the structural descriptions it assigns. Apparently, the nature of this relationship makes it necessary to impose far more stringent constraints on entities which are to qualify as transformational grammars than the formal constraints which have been imposed thus far. Quite likely the necessary constraints will have a nature radically different from those which are familiar.

Thus not only current versions of the theory of transformational grammar, but also current approaches to the refinement of this theory are inadequate to the resolution of an important issue of current linguistics.

77. Joseph H. Greenberg, Stanford University

THE THEORETICAL SIGNIFICANCE OF THE RELATION OF FREQUENCY TO SEMANTIC FEATURES IN A CASE LANGUAGE (RUSSIAN)

The recent frequency dictionary of Russian by Steinfelt is apparently unique in that it gives the case frequencies of individual nouns (approximately 900 of them). Examination of these data shows large and consistent differences among different semantic groups of nouns. For example, while personal individual nouns (e.g. 'woman') have the nominative as the most frequent case, personal collectives (e.g. 'army') have the genitive as the most frequent. A cluster analysis by computer is being prepared and the results are expected to be incorporated in the paper.

Among the theoretical considerations arising from these results are the following. (1) The theory of the connection between frequency and marking may be modified by the introduction of 'conditional marking' based on semantic features of the noun. (2) A view is developed that a case system involves certain core relations between particular semantic groupings and cases revealed among other ways by the frequency data of the type presented here. The redundancies of such a system are almost completely destroyed by processes that may be called metaphorical in the broadest sense. Two types are considered here, first metaphor in the usual sense and then something that will be called grammatical metaphor, the process by which paraphrases involving the same truth-value meaning arise but with the noun in different case forms. One of these case forms is basic for the noun and the other(s) derived. In one usage of the term 'grammatical meaning' it is this which is changed by such a 'metaphor.'

HANDOUT

The Theoretical Significance of the Relation of Frequency to Semantic Features in a Case Language (Russian)

TABLE 1

OVERALL CASE FREQUENCIES

	N	G	D	A	I	P
All nouns	33.6	24.6	05.1	19.5	07.8	09.4
*Proper nouns	76.2	12.7	05.5	01.1	01.4	02.2
Personal pronouns 1 & 2	51.8	21.8+	14.5	09.5-	02.2	00.2
Personal non-proper names	55.3	22.5	07.3	07.4	06.2	08.4
Personal collectives	23.9	48.0	04.2	09.6	06.2	08.4
Count concrete	21.0	16.9	05.0	34.4	07.7	21.2
Mass concrete	21.2	31.7	02.3	24.7	13.5	06.4
Measures	02.7	85.4	01.0	06.1	01.5	05.3

TABLE 2

"PURE" (i.e. NON PREPOSITIONAL) FREQUENCIES

	N	G	D	A	I	P
*All nouns	50.1	26.0	02.6	15.9	05.3	00.0
*1, 2 pronouns	58.2	16.8	15.0	10.0	00.3	00.0

78. Arthur J. Compton, University of Iowa

DEVELOPMENTAL PHONOLOGY

Research in developmental phonology has focused almost entirely upon 1) the child from birth to about one year, which is by its very nature prelinguistic or 2) the child of three or four years and beyond, thus overshooting the most crucial period of development. Consequently, an enormous mass of research has literally been conducted "around" the primary phase of phonological development leaving behind a virtual vacuum. This research gap is obviously not the result of design but, rather, of circumstance, the essential difficulties being 1) the inaccessibility of adequate quantities of representative longitudinal data for study between the ages of one and three years, and 2) the near impossibility of doing controlled experiments with children under three years of age.

The present study 1) reports the data gathering procedures used to obtain detailed longitudinal phonological records from two children beginning with the 15th month of life (earliest period that meaningful utterances could be inferred), 2) summarizes the generative descriptions derived from analyses of the data, and 3) presents comparisons between the grammars of the two children.

The results clearly demonstrate that although the phonological inventories of both children are nearly identical, each is following an entirely different developmental pattern of movement toward the adult model. In fact, most of the children's phonological regularities can only be captured by expressing them as "output" relations to the adult model "input", i.e., the child's system cannot be studied as an independent one, but rather the approach must more nearly approximate that of historical reconstruction or comparative linguistic analysis.

In general, two simultaneous processes of phonological growth were revealed: 1) sequential feature acquisition linked chiefly with initial and final position environments, and 2) acquisition of "implicit" rules which operate upon the feature system. However, it is methodically nearly impossible to unambiguously assign features directly to children as past theories have suggested; rather, they must be inferred indirectly by determining which ones are necessary to "make the rules work" in much the same way one goes about establishing syntactic and semantic categories.

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